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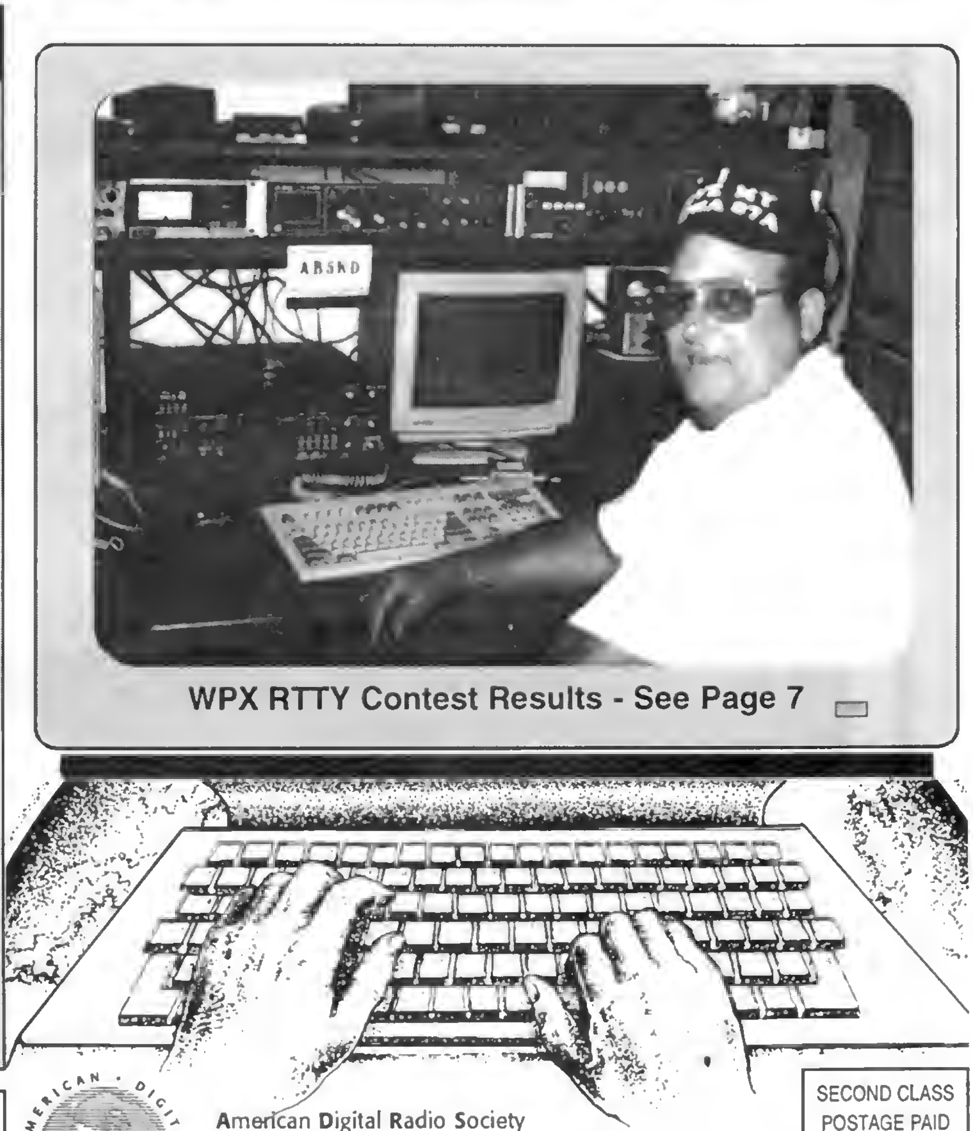

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Special Announcement from the ADRS Board of Directors

There has been a serious difference of opinion in the ADRS Board of Directors about the management and direction of the Society since last October. Those differences primarily concern the scope and mission of the ADRS, both now and into the future. At the Board meeting in Dayton, after much, discussion, the group found itself deadlocked. Various members of the Board, from both sides of the issue, continue to work on the problem and now seem to have an amicable answer at hand. We hope it will be completed within a few days. It is not appropriate to discuss the details now since there is not a complete agreement and there may well be some changes before we conclude the discussions. A complete review will be included in the July issue of the Journal. Also watch the landline BBS and the Internet Web Page for details as they become available.

Al W2TKU, Paul W4ZB.

FCC UPDATE: HF FORWARDING

R:950510/2341z @:N2JAW..NY.USA.NA TRENTON, NY Z:13354 #:12025

REPORT AND ORDER 95-163

ADOPTED: APRIL 17, 1995 RELEASED: APRIL 27, 1995

BY THE COMMISSION:

I. INTRODUCTION

1. ON JUNE 13, 1994, WE ADOPTED A NOTICE OF PROPOSED RULE MAKING (NOTICE) IN THE ABOVE-CAPTIONED PROCEEDING. IN THE NOTICE, WE PROPOSED TO AUTHORIZE AUTOMATIC CONTROL OF STATIONS TRANSMITTING DIGITAL EMISSION TYPES ON THE HIGH FREQUENCY (HF) AMATEUR SERVICE BANDS, SUBJECT TO TWO CONDITIONS FOR SUCH OPERATION. THE AUTOMATICALLY CONTROLLED STATION MUST EITHER BE CONNECTED TO ANOTHER STATION THAT IS UNDER MANUAL CONTROL, OR THE AUTOMATICALLY CONTROLLED STATION MUST TRANSMIT WITHIN A SUBBAND DESIGNATED FOR THIS PURPOSE. IN THIS REPORT AND ORDER, WE ADOPT THE PROPOSED RULES.

II. DISCUSSION

2. IN RESPONSE TO THE NOTICE, WE RECEIVED NINETEEN COMMENTS AND ONE REPLY COMMENT. THE COMMENTS RANGED FROM RECOMMENDING THAT AUTOMATIC CONTROL NOT BE AUTHORIZED UNDER ANY CONDITION TO RECOMMENDING THAT AUTOMATIC CONTROL BE AUTHORIZED UNCONDITIONALLY. THEY CONFIRMED GENERALLY THAT THE AMATEUR SERVICE HAS A NEED FOR STATIONS TO TRANSMIT DIGITAL EMISSION TYPES ON THE HF BANDS WHILE UNDER AUTOMATIC CONTROL. THE COMMENTS ALSO ESTABLISHED THAT THERE IS CONCERN THAT SUCH TRANSMISSIONS COULD CAUSE INTERFERENCE TO OTHER COMMUNICATIONS. THE COMMENTS, HOWEVER, GENERALLY AGREE THAT THE CONDITIONS PROPOSED WILL PROVIDE THE NECESSARY DEGREE OF PROTECTION AGAINST SUCH INTERFERENCE. THEY INDICATED, MOREOVER, THAT THE DESIRED COMMUNICATIONS CAN BE CARRIED OUT UNDER THE CONDITIONS PROPOSED.

3. EXCEPT FOR TEMPORARY AUTHORITY WE ISSUED TO VERMIT A FEASIBILITY STUDY DIRECTED BY THE AMERICAN RADIO RELAY LEAGUE, INC. (ARRL), AUTOMATIC CONTROL HAS NOT BEEN AUTHORIZED ON THE HF BANDS. HERETOFORE WE HAVE CONSIDERED IMMEDIATE ACTION BY THE STATION CONTROL OPERATOR AS NECESSARY TO AVOID CAUSING INTERFERENCE TO THE COMMUNICATIONS OF OTHER AMATEUR STATIONS TRANSMITTING ON AN HF BAND. A STATION TRANSMITTING ON AN HF BAND USUALLY DEMANDS GREATER ATTENTION BY ITS CONTROL OPERATOR THAN DOES A STATION TRANSMITTING ON VERY-HIGH FREQUENCY (VHF) AND HIGHER FREQUENCY BANDS BECAUSE HF RADIO WAVE PROPAGATION IS LONG RANGE AND CHANGES OFTEN. THE COMMENTS, HOWEVER, INDICATED THAT SUCH OPERATION IS PRACTICAL ON THE HF BANDS WHEN THE AUTOMATICALLY CONTROLLED STATION IS SIMPLY RESPONDING TO INTERROGATION BY A STATION HAVING THE CONTROL OPERATOR AT ITS CONTROL POINT OR WHEN THE STATION IS TRANSMITTING ON A CHANNEL LOCATED WITHIN A SMALL SUBBAND DESIGNATED FOR THAT PURPOSE.

4. THE ARRL SUPPORTS THE PROPOSAL. IT STATES THAT ABSENT CONSENSUS IN THE COMMENTS, WE SHOULD TAKE THE COMPROMISE APPROACH REFLECTED IN THE RULES AS PROPOSED. IT CONTENDS THAT AUTHORIZATION OF AUTOMATIC CONTROL WILL RESULT IN GREATER FLEXIBILITY IN EXPERIMENTATION AND DEVELOPMENT OF DIGITAL COMMUNICATIONS AS WELL AS FACILITATE ADAPTION OF EXISTING DIGITAL TECHNOLOGIES TO PRACTICAL USE. IN ANOTHER COMMENT THAT STRONGLY SUPPORTED AUTOMATIC CONTROL, HOWEVER, COLBY STATES THAT ESTABLISHING AND MAINTAINING COMMUNICATIONS ON A SHARED HF CHANNEL IS NO DIFFERENT THAN IT IS ON A SHARED VHF CHANNEL, AND OPPOSES ANY CONDITIONS ON AUTOMATICALLY CONTROLLED AMATEUR STATIONS BEYOND THOSE NOW REQUIRED IN THE VHF BANDS. THE ARRL ARGUES THAT ADDITIONAL CONDITIONS PROPOSED ARE NECESSARY BECAUSE ANY AUTOMATICALLY CONTROLLED STATION TRANSMITTING IN A CROWDED SHARED HF BAND INVOLVES A SUBSTANTIALLY INCREASED RISK OF INTERFERENCE. OTHER COMMENTS ALSO EXPRESS CONCERN WITH AN INCREASED RISK OF INTERFERENCE. FURTHER, THEY OPPOSE THE ESTABLISHMENT OF SUBBANDS AS A SOLUTION TO THE INTERFERENCE CONCERN BECAUSE SUBBANDS WOULD SIGNIFICANTLY REDUCE THE AVAILABLE SPECTRUM FOR STATIONS TRANSMITTING OTHER EMISSION TYPES.

5. AUTOMATIC CONTROL OF STATIONS TRANSMITTING DIGITAL EMISSION TYPES ENABLES AMATEUR OPERATORS TO UTILIZE HIGH-SPEED COMPUTER-BASED MESSAGE TECHNOLOGY FOR THE RAPID AND ACCURATE RELAYING OF MESSAGES AND DATA. FOR THIS REASON, WE CONCLUDE THAT THERE HAS BEEN DEMONSTRATED A NEED FOR STATIONS IN THE AMATEUR SERVICE TO TRANSMIT ON THE HF BANDS UNDER AUTOMATIC CONTROL. SUCH OPERATION WILL RESULT IN GREATER FLEXIBILITY IN EXPERIMENTATION AND DEVELOPMENT OF DIGITAL COMMUNICATIONS.

6. WE DO RECOGNIZE THE CONCERNS OF THOSE WHO OPPOSE THE PROPOSAL ON THE BASIS OF POTENTIAL INTERFERENCE, AND IN RESPONSE TO THESE CONCERNS WE ARE LIMITING WHEN AUTOMATIC CONTROL CAN BE EMPLOYED. FIRST, THE CONTROL OPERATOR OF THE STATION THAT IS CONNECTED TO THE AUTOMATICALLY CONTROLLED STATION MUST PREVENT THE AUTOMATICALLY CONTROLLED STATION FROM CAUSING INTERFERENCE. SECOND, WE ARE DESIGNATING SUBBANDS TO WHICH TRANSMISSIONS BETWEEN TWO AUTOMATICALLY CONTROLLED STATIONS ARE CONFINED. THESE SUBBANDS ARE A SMALL PORTION OF THE SPECTRUM OTHERWISE AVAILABLE FOR DIGITAL EMISSION TYPES. WE ALSO ARE CONFIDENT IN THE ABILITY OF THE AMATEUR SERVICE COMMUNITY TO RESPOND, AS IT HAS IN THE PAST, TO THE CHALLENGE OF MINIMIZING INTERFERENCE WITH NOVEL TECHNICAL AND OPERATIONAL APPROACHES TO THE USE OF SHARED FREQUENCY BANDS.

7. REQUIRING AUTOMATICALLY CONTROLLED STATIONS TO TRANSMIT ONLY IN THE DESIGNATED SUBBANDS WHEN COMMUNICATING WITH ANOTHER AUTOMATICALLY CONTROLLED STATION, FURTHERMORE, WILL NOT REDUCE THE HF SPECTRUM AVAILABLE FOR OTHER EMISSION TYPES. THE BANDWIDTH OF THE TRANSMISSIONS OF AN AUTOMATICALLY CONTROLLED STATION WILL OCCUPY NO MORE THAN 500 HZ, AND THE SUBBANDS REPRESENT ONLY 3.8 PERCENT OF THE HF SPECTRUM AUTHORIZED TO THE AMATEUR SERVICE. OTHER THAN MORSE TELEGRAPHY, ONLY DIGITAL EMISSION TYPES ARE CURRENTLY AUTHORIZED FOR THE SPECIFIED SUBBANDS. NOTHING IN THE RULES THAT WE ARE ADOPTING PROHIBITS OTHER STATIONS FROM CONTINUING TO SHARE THESE SUBBANDS.

HF FORWARDING - 2
R:950511/0003z @:N2JAW..NY.USA.NA TRENTON, NY Z:13354 #:12027

III. CONCLUSION RO 95-163(2/2)

8. IN SUMMARY, WE ARE AMENDING THE AMATEUR SERVICE RULES TO AUTHORIZE AUTOMATIC CONTROL OF AMATEUR STATIONS. TO LESSEN THE POSSIBILITY OF INADVERTENT INTERFERENCE, THE AUTOMATICALLY CONTROLLED STATION EITHER MUST BE CONNECTED TO ANOTHER STATION THAT IS UNDER MANUAL CONTROL,

OR THE AUTOMATICALLY CONTROLLED STATION MUST TRANSMIT ONLY WITHIN A SUBBAND DESIGNATED FOR COMMUNICATIONS BETWEEN AUTOMATICALLY CONTROLLED STATIONS. WE BELIEVE THESE RULE CHANGES WILL ALLOW THE AMATEUR SERVICE COMMUNITY TO CONTRIBUTE TO COMMUNICATION TECHNOLOGY AND TO ADVANCE ITS COMMUNICATION AND TECHNICAL SKILLS CONSISTENT WITH SECTION 97.1 OF THE COMMISSION'S RULES, 47 C.F.R. 97.1. WE SEE THIS ACTION AS FUNDAMENTAL TO OUR COMMITMENT TO PROVIDE MAXIMUM FLEXIBILITY TO THE AMATEUR SERVICE COMMUNITY. THEREFORE, WE WILL AMEND THE AMATEUR SERVICE RULES AS SET FORTH IN THE ATTACHED APPENDIX.

IV. ORDERING CLAUSES

9. ACCORDINGLY, IT IS ORDERED THAT EFFECTIVE JULY 1, 1995, PART 97 OF THE COMMISSION'S RULES, 47 C.F.R. PART 97, IS AMENDED AS SET FORTH IN THE APPENDIX HERETO. AUTHORITY FOR THIS ACTION IS FOUND IN SECTION 4(I) AND 303(R)OF THE COMMUNICATIONS ACT OF 1934, AS AMENDED, 47 U.S.C. 154(I) AND 303(R).

10. IT IS FURTHER ORDERED THAT THIS PROCEEDING IS TERMINATED.

11. FOR FURTHER INFORMATION, CONTACT WILLIAM T. CROSS OF THE WIRELESS TELECOMMUNICATIONS BUREAU, PRIVATE WIRELESS DIVISION, (202) 418-0680.

FEDERAL COMMUNICATIONS COMMISSION

WILLIAM F. CATON ACTING SECRETARY APPENDIX

PART 97 OF CHAPTER I OF TITLE 47 OF THE CODE OF FEDERAL REGULATIONS IS AMENDED AS FOLLOWS:

PART 97 - AMATEUR RADIO SERVICE

1. THE AUTHORITY CITATION FOR PART 97 CONTINUES TO READ AS FOLLOWS:

AUTHORITY CITATION: 48 STAT. 1066, 1082, AS AMENDED 47 U.S.C. 154, 303. INTERPRET OR APPLY 48 STAT. 1064-1068, 1081-1105, AS AMENDED 47 U.S.C. 151-155, 301-609, UNLESS OTHERWISE NOTED.

2. SECTION 97.109 IS AMENDED BY REVISING PARAGRAPHS (D) AND (E) TO READ AS FOLLOWS:

97.109 STATION CONTROL.

(D) WHEN A STATION IS BEING AUTOMATICALLY CONTROLLED, THE CONTROL OPERATOR NEED NOT BE AT THE CONTROL POINT. ONLY STATIONS SPECIFICALLY DESIGNATED ELSEWHERE IN THIS PART MAY BE AUTOMATICALLY CONTROLLED. AUTOMATIC CONTROL MUST CEASE UPON NOTIFICATION BY AN EIC THAT THE STATION IS TRANSMITTING IMPROPERLY OR CAUSING HARMFUL INTERFERENCE TO OTHER STATIONS. AUTOMATIC CONTROL MUST NOT BE RESUMED WITHOUT PRIOR APPROVAL OF THE EIC.

(E) NO STATION MAY BE AUTOMATICALLY CONTROLLED WHILE TRANSMITTING THIRD PARTY COMMUNICATIONS, EXCEPT A STATION TRANSMITTING A RTTY OR DATA EMISSION. ALL MESSAGES THAT ARE RETRANSMITTED MUST ORIGINATE AT A STATION THAT IS BEING LOCALLY OR REMOTELY CONTROLLED.

3. A NEW SECTION 97.221 IS ADDED TO SUBPART C TO READ AS FOLLOWS:

97.221 AUTOMATICALLY CONTROLLED DIGITAL STATION.

(A) THIS RULE SECTION DOES NOT APPLY TO AN AUXILIARY STATION, A BEACON STATION, A REPEATER STATION, AN EARTH STATION, A SPACE STATION, OR A SPACE TELECOMMAND STATION.

(B) A STATION MAY BE AUTOMATICALLY CONTROLLED WHILE TRANSMITTING A RTTY OR DATA EMISSION ON THE 6 M OR SHORTER WAVELENGTH BANDS, AND ON THE 28.120-28.189 MHZ, 24.925-24.930 MHZ, 21.090-21.100 MHZ, 18.105-18.110 MHZ, 14.0950-14.0995 MHZ, 14.1005-14.112 MHZ, 10.140-10.150 MHZ, 7.100-7.105 MHZ, OR 3.620- 3.635 MHZ SEGMENTS.

(C) A STATION MAY BE AUTOMATICALLY CONTROLLED WHILE TRANSMITTING A RTTY OR DATA EMISSION ON ANY OTHER FREQUENCY AUTHORIZED FOR SUCH EMISSION TYPES PROVIDED THAT:

(1) THE STATION IS RESPONDING TO INTERROGATION BY A STATION UNDER LOCAL OR REMOTE CONTROL AND

(2) NO TRANSMISSION FROM THE AUTOMATICALLY CONTROLLED STATION OCCUPIES A BANDWIDTH OF MORE THAN 500 HZ.

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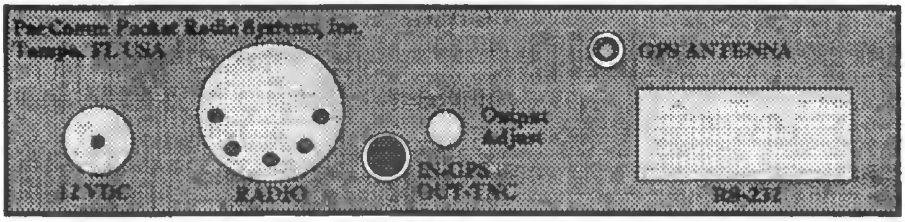

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Packet Power

Tips for the new and seasoned packet user

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P.O. Box 189, Burleson TX 76097-0189 / CompuServe ID: 73427,2246

Deadline Dayton

Dayton 95 has come and gone. It was an absolute blast. If you really love this hobby, you must make a pilgrimage to the Dayton Hamvention at least once in your life. Don't ask me why it has, but it has become our largest get-together of hams in the country. Three full days of wheeling and dealing, forums, informal get-togethers and recognition by peers. An attendance of between 35 and 40 thousand. The mother of all flea markets. If a marketer of ham gear shows at only one hamfest, this is the one they choose.

Let me zero in on the activity that I participated in on and why packet looks just as healthy as a horse. I was the moderator (master of ceremonies, really) for the digital forum held on Friday. We had a full afternoon of captivating speakers, among them Greg Jones, WD5IVD, President of TAPR; Dr. Phil Anderson, W0XI, President of Kantronics; and Bob Bruninga, WB4APR, author of the APRS packet radiolocation software. Talk about an all-star lineup!

The Miami Valley FM Association and TAPR co-sponsored it First Annual Packet Bash, which replaced the customary dinner at McNasty's. This new bash turned out to be a bigger event than expected (we took over a restaurant for the evening and filled it to capacity). Special events included two after-dinner speakers, a merchandise give-away and several Special Interest Group meetings for APRS users and node sysops that went on late into the evening until the owner regretfully but politely 'threw us out.' He is looking forward to a repeat of the event next year. The food and vibes were good, and lots of learning takes place at these types of social get-togethers.

During the weekend, it was my pleasure to work the TAPR booth at Hara Arena and meet many folks from all over the world. Ran into some good friends from Texas, refreshed some old acquaintances among the marketers from my days as a Buyer for Radio Shack. Hit the flea market and found some surplus Motorola gear I was looking for. Met *the* C.W. "Bud" Wolfe (no relation-he spells it differently) who is a big supplier of used commercial two-way gear a lot of us sysops use in our packet setups. Blew a small fortune on some new test gear to do 9600 baud conversions and node maintenance. Visited the ADRS hospitality suite at the Raddison Inn (where I stayed, too) and met up with Ron, Dale and a bunch of the folks who make this fine publication possible.

Although a severe hailstorm at D/FW airport bashed my poor car from hood to trunk while I was in Dayton, I was sorry to see the weekend come to an end and can't wait for next year to roll around again. If this all sounds a little self-serving, that certainly is not the intention of this piece. It's to impart that there is more fun at Dayton than you can possibly sample in one visit. Speaking of sampling, the cinammon-almonds were out of this world and conveniently located within easy walking distance from the TAPR booth. If you can spare the airfare or the drive is reasonable, you've got to make Dayton. It's worth the visit. If you can do it with friends or family, so much the better!

I saw scads of new TNCs being carried out of the arena, so I know that packet radio is just as captivating as ever for many new and established hams. How long can packet sustain this kind of growth? I predict there will be pressure to expand packet on two meters to start using underutilized repeater frequencies (maybe even 'convert' voice repeaters to packet repeaters on a full time basis). We shall see!

New Space at 220 a Real Catch-22

The FCC has allocated some spectrum to the Amateur Radio Service on 219 MHz that might not be such a plus for us. Consider this: the spectrum is from 219-220 MHz. It is ONLY for point-to-point fixed digital message forwarding, including intercity packet backbone networks. While this might seem like a gesture by the FCC to settle an old debt over the loss of 220-222 MHz, I wouldn't consider it to be much of a gift.

There is no and there will be no ham-only gear that will function on 219-220. Resourceful types will have to obtain obsolete commercial gear and make conversions. I'm talking major conversion, not simply re-crystalling and tweaking.

Hams in many places in the country, especially along major waterways, will be left out in the cold. We are on this group of frequencies as secondary users and must inform our commercial cousins of our intentions to operate. They may say 'no' if they feel we will create interference to their operations.

What concems me about this 'gift' is that it might turn out to be a trap of sorts. We are bemoaning the threat of continued loss of spectrum. The FCC gives us a 'new' sliver of spectrum. Very few hams will use this spectrum primarily due to the lack of easily-convertible equipment. Further, the areas in the country that could use this spectrum the most will be unable to use it because of potential interference to existing commercial users. The next big grab of ham spectrum will be made, in part, because the FCC claims that we won't use extra spectrum that they assign to us (219-220 MHz).

The solution to this is for the hands-on folks among us to get conversion articles together for old Micors (which are now a dime a dozen). We can hope that the commercial users of this spectrum give up on it as more contemporary technology becomes prevalent and cheaper. For more detail on this, see May 1993 QST (page 9) and May 1995 QST (pages 9 and 93).

There is other FCC news that is covered elsewhere in this issue of the Digital Journal. News of unattended (sort of) HF forwarding. I will leave it to my colleagues who are active in this part of the hobby to post their observations.

Big Digital Doings in Texas

The big hamfest for the Dallas/Ft. Worth area, HamCom, will be June 9-11th in Arlington, Texas. A whole day of digital presentations plus an early-evening hospitality suite featuring several ADRS honchos are on tap. This hamfest is a bunch of fun and I hope to meet you there. I'll be handling much of the introductions at the forum.

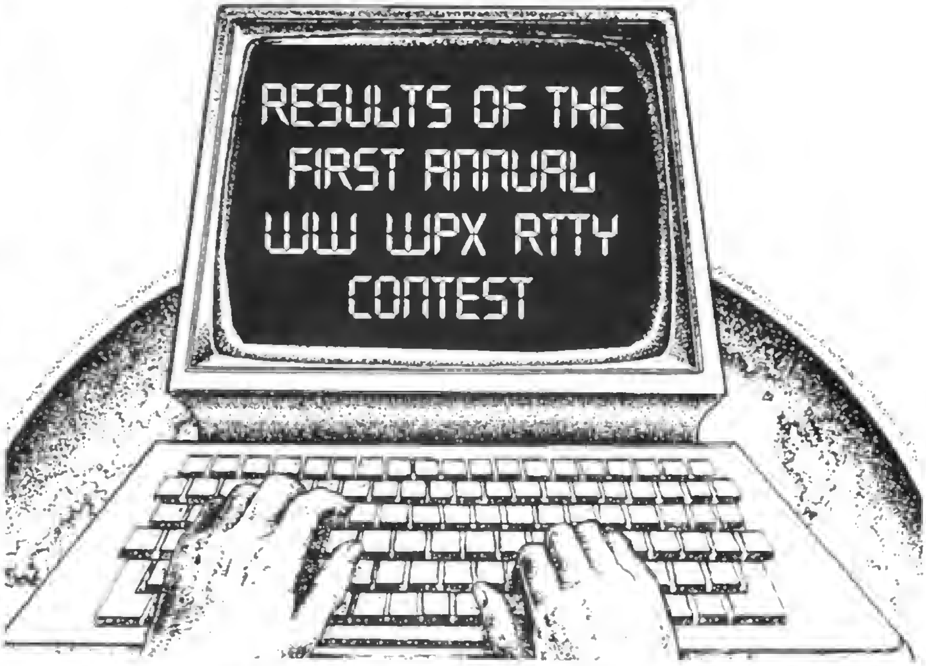
While air fare wars are keeping prices cheap, I want to remind you of the 14th Annual ARRL Digital Communications Conference this coming September 8-10 in Arlington, Texas. This is co-hosted by Tucson Amateur Packet Radio (TAPR) and the Texas Packet Radio Society (TPRS). It is an international event featuring technical papers, guest speakers, formal and informal discussion groups and fun. If you can't seem to get enough opportunity to meet with others to discuss the more technical side of digital communications, this event is for you. The deadline for paper submission is July 21, 1995. Contact Maty Weinberg at ARRL Headquarters for a format guide. Conference information may be obtained from the TAPR office (817) 383-0000 or drop them a note at 8987-309 E. Tanque Verde Road, Tucson, AZ 85749-9399.

Until next time, keep those cards and letters coming in and keep using your *Packet Power.*

73 de Dave WO5H

Ray Ortgiesen, WF1B, author of the popular 'RTTY by WF1B' contest software was moderator of the WPX Awards dinner held at the Radisson hotel

Photo by Betsy Townsend, WV7Y



RESULTS OF THE FIRST ANNUAL WW WPX RTTY CONTEST

Edited by Ron Stailey, AB5KD
& Jay Townsend, WS7I

When is comes to contests, it's a digital choice — you either contest or you do something else that weekend. On the first weekend of last February, the Digital Journal sponsored the first **WW WPX RTTY** contest, and a lot of digital amateurs contested. All had fun.

CONDITIONS

The WPX contest format may very well become the best rate-type contest to ever come along in the digital contesting world. The reason is that at the start of the contest the "K" index from WWV was at five (5). Many contestors wouldn't normally even bother entering the event with an index that high.

Even with those conditions last February, we still had several stations toping the 1,000 QSO mark. Just think about what kind of scores we will have when conditions improve. Come on 1998-1999, hurry along please! Unfortunately, we have got to get through the '96-'97 years first.

LOGS

Well over 200 logs were sent in for scoring for the inaugural WPX digital contest. Over half of the logs submitted were from outside North America. Logs were sparse from South America, Africa, and the Caribbean. And we had some very active stations that didn't submit logs at all. A few were not sure of the rules, but we helped fix the logs when we could.

WE'RE OFF

Needless to say, the 1995 WPX contest started out a little slow for all of us. But as time passed , the activity levels increased and increased. For most of us in the U.S. and Canada, contacts and multipliers come from North America, with a few from Japan and South America. Very few QSO's were from Europe during the first ten hours of the contest.

For the Europeans it was a 'work Europe' deal and they concentrated on the low bands for the start. The reported rate wasn't very high, but quite a few mults show up in the logs and those points on the low bands helped neutralize the band conditions.

In Asia and the Pacific regions there were some good opening to the north and to the west. However, the favorite 15 meter band was not in contest condition.

Around 1330Z, forty meters was the band to be on, Japanese stations were worked in large quantity, from 7029 to 7040, ZK1MM was working Japan and western North America. After he went QRT, it was the Japanese working North America with everyone at 6 points a pop.

A few VK's and ZL's to came up to sweeten the pileups. Stations like N6GG, WS7I and AA5AU were heard, all taking full advantage of this opening. ZL2AMI, VK6GOM, and JA3DLE/1 along with others were very active on the low bands.

Europe started to appear on twenty meters around 1200Z for the eastern part of the U.S. and Canada on Saturday morning. One of the biggest reasons we didn't hear Europe on Saturday around 1300Z when 20 meters opened to us, was because the Europeans were still on 80 meters working each other. Considering the points they were getting I can't blame them much.

At best, there was just an occasional European on Saturday. We will have to learn to live with conditions like they are for a few more years, but its hard. Europe didn't show up until Sunday around 1300Z with any strength, at least for those in the western U.S. and western Canada.

When the band opening occurred for Europeans and the rest of the stations who needed Europe, it was work all the mults possible, as quickly as possible while the band held up.

Africa had pretty good paths into Europe most of the day on Sunday with a small opening to North America and the east coast. We did not receive many logs but there was pretty good activity from Africa.

SOFTWARE

Before we get to the results you should make note that virtually every single score submitted has been changed. Software for a new contest is always a challenge and Ray, WF1B, met that challenge with a new product for his many users. Unfortunately, there were a few "bugs". An attempt was made to get the word and a fix out. Almost 90% of the logs were "fixed" by the log checking staff. That's why your score has been changed.

Mike, LX1KQ worked up a thirst during the heat of the contest

One bit of advice is in order. A program isn't the cure for looking at your log. If you check on the summary page you will notice that the QSO point column doesn't add up.

Another note of interest is to check the countries list when in doubt. There are frequently corrections to be made. A good example in this contest was the VO2.

SINGLE BAND Plaque Winners

15 Meters:	TY1PS	41,410
20 Meters:	LZ1MC	140,760
40 Meters:	W2UP	81,508
80 Meters:	S57DX	127,746
Special:	JR5JAQ	118,312

Ten meter activity was practically nonexistent for the most part in North America. There was some Asian activity as well as a couple of Europeans working each other. We didn't receive any ten meter Single/Band entries. The 10 meter plaque will be waiting for someone next year or the year after !

80 METERS
The DX path was primarily the north south path for everyone. Europe had some big low band scores. Especially on 80 meters, Slavko S57DX, ruling the roost with the top score of 127,746. Jeff, K1IU in second place scoring 83,508. Jeff picked up some outstanding mults and new DXCC countries on 80 meters that would make your mouth water with envy.

40 METERS
On forty meters, Barry W2UP lead the pack with his 81,508 score. Rich N6GG was in second place scoring 66,000. All in all the low bands 40 and 80 meters were very important bands for all contesters.

Wonder when somebody will give Barry a run on this band from the East Coast or from Europe? The West Coast just can't get it done on RTTY.

20 METERS
Twenty meters saw many more entries and a very competitive race. Slavi, LZ1MC showed us how things were done with an outstanding score of 140,760. While Masanobu, JR5JAQ narrowly took second place with his score of 118,312. This score was the best effort in the contest from Japan and JR5JAQ won the "Inspirational Award Plaque" for this effort.

Phil, NA4M, had 115,872 for the third place finish. Phil had the highest QSO and Multiplier rate of all the single band 20 meter guys. He was unable to get the higher points with the lack of good conditions. Texas wasn't the spot for a single 20 this year. Janez, S51DX was also in the race with his 107,672 points. Bob, VE7OR placed in the top five with his 105,118 score. It looks like it was a real war on 20 meters, with four of the top five so close.

15 METERS
Looking at fifteen meters, Peter, TY1PS had a turkey shoot on this band almost by himself. Peter finished with a score of 41,410 taking the fifteen meter single band plaque with ease.

SINGLE OPERATOR / HIGH POWER
Plaque Winners

WORLD	AB5KD	606,369
N. AMERICA	KF3P	552,336
CANADA	VE7IN	302,075
USA	KN6DV	250,755
OCEANIA	AH6JF	83,657
EUROPE	UT0I	302,100
ASIA	A45ZX	157,648
JAPAN	JA3DLE/1	65,640

In the Single Operator High Power category, Ron, AB5KD took the honors with a score of 606,369, in second place was Tyler, KF3P, with his stacked KT34XA's nipping at Ron's heels, Tyler turned in a very nice score of 552,336. In third place was Nick, UT0I scoring 302,100. As we saw on the single bands the lack of getting runs going into the U.S. and Canada was the problem from Europe. Fourth place went to VE7IN scoring 302,075, Earl being on the wrong end of Canada to hear Europe.

The Honorable Mention list were calls like US9Q, A45ZX, EA2IA, OH2LU, S57A, VS6BG, JA3DLE/1, LA7AJ and JH7QXJ all finishing in the DX top 10 list.

The U.S. had some close competition in the middle of the single operators with K2PS, K4IBP, W7LZP, AA9JY, K3WW, all showing with good scores. But that fellow from Texas is might tough to stay with in the high power category.

SINGLE OPERATOR / LOW POWER
Plaque Winners

World:	AA5AU	305,136
North America:	AA7UN	192,024
Canada:	CJ6V	140,608
U.S.A.	KA4RRU	186,000
Oceania	ZL2AMI	106,726
Europe	IV3FSG	172,128
Asia	4X6UO	109,482

In the Single Operator Low Power category, Don AA5AU, became King of the Hill with his score of 305,136. Don had a 113,112 point lead over second place.

Don also uses two radios, which seems to be the only way to go if you want to be number one these days. Don set the pace that no one could keep up with in the low power category in this year's WPX contest. Jim, AA7UN managed to pick up second place with a 192,024 score, and third place went to Mike KA4RRU scoring 186,000.

Elvira, IV3FSG turned in a nice score of 172,128. Arie, 4X6UO also having a nice signal into the U.S. finished with a score of 109,482. Some on the Honorable Mention list were calls like ZL2AMI, OK1DIG, CJ6V, OH2GI, G5LP, LX1KQ/A and GW4KHQ all finishing in the DX top 10 list.

N1OAZ, W5TZN, WW1Y, and AA3EV were all in the race and most of these guys won some wall paper.

MULTI OPERATOR / SINGLE TRANSMITTER
Plaque Winners

World:	RK9CWA	570,222
North America:	KP2N	421,875
Canada:	VA3LM	149,264
United States:	WU3V/5	364,420
Europe:	PA6WPX	264,610
Oceania:	VK6GOM	134,316

Multi Operator Single Transmitter category, in this category top honors went to the very famous call of RK9CWA. Serge and Mike made another slam dunk in the M/S category, with a score of 570,222 and were complaining about conditions at the same time.

Second place went to another famous call KP2N with Nick KE5BK and Drew NP2E, as the ops scoring a 421,875. Nick and Drew operating at KP2N's QTH while Ron, KP2N, himself went to a ham convention in Florida.

(Note: We plan to do something about the dates of our WPX contest and the major conventions next year, see end of column.)

In place third was WU3V/5. Jim and crew finished with a score of 364,420. The Honorable Mentions were calls like KQ4QN, PA6WPX (I love that call), IK2SGF, SI0ZG, VA3LM and VK6GOM. All finished in the Top 10 of the Multi Single category.

From the looks of things the fifth call area of the U.S. is standing tall wining Single/Op High Power Plaque, Single/Op Low Power Plaque, and the Multi/Single category, winning the U.S.A. Plaque. Not bad for one call area. I can't remember that happening before in any contest.

World:	WS7I	648,130
Europe:	SP5KIM	16,185
Asia:	JH4UYB	43,990

A pretty well known call won the Multi Operator and Multi Transmitter category, WS7I.

Operators were: Jim WB7AVD, Hal, WA7EGA and Jay, WS7I. They took the honors with a score of 648,130 the top score in the WW WPX RTTY contest.

Not only did they take the honors, they also run off all the serious competition! Where on Earth was W3LPL, I didn't think they would miss this one for any reason!!!

With JH4UYB and JL4NCF using call JH4UYB finishing second with a score of 43,990, and the club station SP5ZIM in third scoring 16,185.

In the Multi/Multi category things didn't turn out quite the way we wanted them to. Not at all, as matter of fact.

For some reason in RTTY contesting the Multi/Multi category has the reputation of being the Big Gun of all Big Guns battleground, and if you don't have a station that fills this sort of description KEEP OUT. Well that's not the case at all. True, the big guns will be in there as they are in ANY other category. A good reason to change categories and do a M/M, is to see what you can do with your choice of ops.

Several guys could get together using the biggest station of the group. The other guest ops could bring other equipment like antennas etc. and have a blast over the weekend. If you will do all this for Field Day why not for the biggest contest of the year!

Complaints
This year the biggest complaint was the date of the contest. The first full weekend of February is the same weekend of the Miami Ham Convention, the second largest convention in the U.S. The third weekend of February is the Orlando Convention, it is the third largest convention in the U.S. The CAC (Contest Advisory Committee) has decided to move the WW WPX RTTY Contest to the second (2nd) weekend in February. Please mark your '96 calendar for this big event.

The Digital Journal has set the mold with hopes of others contests to follow. The DJ has turned out the results of the WPX contest in record time. All logs have been checked, corrected and rechecked for mistakes and oversights, plaques have been made, diplomas have been printed and are ready for mailing, or will be presented at the Contesters/DXers dinner in Dayton. It's not very often you see results presented to the public in just a little under 90 days.

Until next year's contest,
de Ron AB5KD & Jay WS7I.

"Words Of Wisdom" — The best way to keep your rate up! — Is to find a hole and fill it . . . with RTTY of course.

Africa

Benin

TY1PS	41,410	143	410	101	S15

Asia

Asiatic Russia

RK9CWA	570,222	633	2,406	237	M/S
UA0FZ	14,012	112	226	62	S/L

Hong Kong

VS6BG	72,500	211	580	125	S/H

Japan

JR5JAO	118,312	239	643	184	S20
JA3DLE/1	65,640	202	547	120	S/H
JH4UYB	43,990	157	415	106	M/M
JH7OXJ	40,887	152	413	99	S/H
JL6HKJ	9,288	63	172	54	S/L
JH7BMZ	7,138	57	166	43	S/L
JH4NMT	5,980	50	130	46	S/H
JA1WYO	4,356	41	132	33	S/H
JA4CZM	3,960	37	120	33	S/L
JA1SJV	2,704	38	104	26	S/L

Israel

4X6UO	109,482	236	771	142	S/L

Oman

A45ZX	157,648	330	944	167	S/H

Europe

Bosnia & Herzegovina

T94DD	143,189	318	961	149	M/S

Bulgaria

LZ1MC	140,760	340	782	180	S20
LZ1OZ	2,924	41	86	34	S20

Croatia

9A2A	19,764	109	244	81	S20

Czech Republic

OK1DIG	101,530	213	710	143	S/L
OK2EO	3,540	40	118	30	S/L

Denmark

OZ5MJ	40,194	132	406	99	S/L

England

G5LP	75,166	188	637	118	S/L

Finland

OH2LU	99,150	220	661	150	S/H
OH2GI	84,224	229	658	128	S/L

Germany

DL9GGA	32,802	125	426	77	S/L
DL6NDN	31,875	119	375	85	S/H
DL7VOG	18,282	87	277	66	S/L
DF5BX	18,270	85	290	63	S/L
DK0KRS	10,638	70	197	54	M/S
DK7FP/P	8,112	53	169	48	S/L
DL1AKL	3,885	38	111	35	S/H
DJ2YE	2,262	30	78	29	S20

Italy

IK2SGF	248,870	392	1,214	205	M/S
IV3FSG	172,128	303	978	176	S/L
IK1TWC	170,640	297	948	180	S/L
I2HWI	106,865	230	737	145	S/L
IK3ASM	48,411	151	489	99	S/L
IK0CHU	26,208	127	336	78	S/L
IK7USP	6,302	50	137	46	S/L
I4BNR	7,228	60	139	52	S/L
IT9ORA	9,240	82	165	56	S20

Kazakhstan

UN5PR	83,760	210	698	120	S/H

Latvia

YL2KF	9,072	85	162	56	S/L

Luxenburg

LX1KQ/A	66,584	166	574	116	S/L

Plaques were presented by contester extraordinaire, Ron AB5KD. Recognize any of these smiling faces?

Macedonia

Z31GX	14,500	84	250	58	S/L

Netherlands

PA6WPX	264,610	367	1,126	235	M/S
PA3EVY	24,108	105	294	82	S/L
PA3GKT	16,380	86	234	70	S/L
PA3BBP	7,602	46	181	42	S/H

Norway

LA7AJ	51,204	155	502	102	S/H

Poland

SP5GRM	88,389	208	549	161	S20
SP7LZP	25,284	92	301	84	S/L
SP5ZIM	16,185	77	249	65	M/M
SP2EIW	6,840	47	152	45	S/L
SP2UUU	4,788	49	126	38	S/H
SP9LKS	3,484	41	134	26	S/L
SP3EJJ	736	16	46	14	S15
SP2GNB	560	17	35	16	S20
SP9JCN	112	7	16	7	S20
SP2ZCD	75	6	15	5	M/S

Romania

YO3FRI	37,752	140	429	88	S/L

Slovak Republic

OM3KXM	19,998	87	303	66	S/L
OM2I	17,155	112	241	73	M/S

Slovenia

S57DX	127,746	216	906	141	S80
S51DX	107,672	246	626	172	S20
S56A	90,420	202	685	132	S/H

Spain

EA2IA	136,938	281	787	174	S/H
EA7ADH	33,300	125	370	90	S/L

Sweden

SL0ZG	155,296	304	844	184	M/S
7S5RY	48,152	167	463	104	S/H
7S4RY	42,273	148	549	77	S/L
SM4CMG	30,317	127	427	71	S/H
SM5FUG	30,080	123	320	94	S/H
SM4GVR	21,170	123	290	73	S/H
SM7BHM	19,154	79	314	61	S/L
7S7RY	10,032	65	209	48	S/L
SM5AAY	9,381	74	177	53	S/L
SM4DHF	9,300	69	155	60	S20
SM0AGD	6,248	51	142	44	S/L

Ukraine

UT0I	302,100	513	1,425	212	S/H
US9O	178,266	347	1,221	146	S/H
UT7I	125,756	319	844	149	S/H

Wales

GW4KHO	61,161	176	551	111	S/L
GW4JBO	52,416	155	468	112	S/L

North America

Alaska

AL7BB	76,446	235	558	137	S/H

Canada

VE7IN	302,075	526	1,405	215	S/H
VE7SAY	239,800	468	1,199	200	S/H
VE6JY	184,450	438	1,054	175	S/H
VA3LM	149,264	331	982	152	M/S
CJ6V	140,608	379	832	169	S/L
VE7OR	105,118	302	622	169	S20
VE6ZX	54,216	222	502	108	S/L
VE2AXO	51,282	184	518	99	S/L
VE3EVV	18,900	109	300	63	S/L
VE8NC	1,885	36	65	29	S20

United States

WS7I	648,130	1,163	1,970	329	M/M
AB5KD	606,369	1,044	1,889	321	S/H
KF3P	552,336	849	1,866	296	S/H
WU3V/5	364,420	735	1,370	266	M/S
AA5AU	305,136	739	1,304	234	S/L
KO4OM	294,736	519	1,352	218	M/S
KF0LZ	287,244	450	1,818	158	M/S
KN6DV	250,755	653	1,145	219	S/H

K2PS	194,790	464	906	215	S/H
AA7UN	192,024	544	889	216	S/L
W3FV	186,953	454	949	197	S/H
KA4RRU	186,000	439	930	200	S/L
K4IBP	177,707	441	893	199	S/H
K4HSF	175,336	505	868	202	S/H
W7LZP	166,870	531	814	205	S/H
AA9JY	143,021	427	799	179	S/H
N1OAZ	137,774	399	757	182	S/L
K3WW	122,672	341	697	176	S/H
NA4M	115,872	381	544	213	S20
W5TZN	111,723	424	669	167	S/L
WW1Y	107,912	340	658	164	S/L
AA3EV	103,174	331	653	158	S/L
KA1SIE	98,072	334	598	164	S/L
N0FMR	95,807	382	643	149	S/L
WA6VZI	93,920	381	587	160	S/L
KE7GH	93,525	375	645	145	S/L
WO6/G0AZT	92,976	371	596	156	S/L
WA4COG	88,616	326	583	152	S/H
WA0ACI	87,345	368	647	135	S/H
K5ED	87,300	355	582	150	S/L
N2FF	85,848	292	584	147	S/H
K1IU	83,440	224	596	140	S80
W2UP	81,508	244	574	142	S40
KD8FS	77,924	331	644	121	S/L
N9CKC	77,409	313	549	141	S/L
NA2M	75,999	308	698	147	S/H
N2PEB	69,090	160	735	94	S/L
N1RCT	66,286	282	506	131	S/L
N6GG	66,000	197	528	125	S40
KF2OG	63,081	259	489	129	S/L
KI4MI	60,249	230	453	133	S/L
WA6SDM	58,375	236	467	125	S/H
KC9UU	53,603	239	443	121	S/L
N9GEU	52,812	262	489	108	S/L
KA2DWV	51,184	240	457	112	S/L
N1MEO	50,716	234	409	124	S/L
W1BYH	49,491	250	423	117	S/L
W6OTC	46,761	215	429	109	S/H
KA3JFI	45,474	192	318	143	S20
WB9EXL	43,197	260	363	119	S/L
WV8P	39,690	111	567	70	S/L
KA8OUT	34,338	188	354	97	S/L
KE4BM	33,561	171	339	99	S/L
K7DSR	33,063	160	309	107	S/H
AA5BE	32,712	204	348	94	S/L
W2JGR/0	30,602	198	286	107	S/H
K0JPL	29,610	170	329	90	S/L
WB5B	29,376	180	306	96	S/H
N2CO	28,000	159	280	100	S/H
AA4M/0	27,495	191	235	117	S20
W1VXV	26,104	151	251	104	S/L
KD2YG	25,926	166	298	87	S/L
KC7MJ	24,904	178	283	88	S/L
AA2RZ	22,576	142	272	83	S/L
K2WK	22,528	120	256	88	S/H
AA6TY	20,636	165	268	77	S/L
W8IDM	20,240	145	253	80	S/L
AA5VN	19,872	156	216	92	S/L
KD0AV	17,155	131	235	73	S/L
N3UN	16,247	100	288	77	S/L
W8EXI	15,476	126	212	73	S/L
W4JLS	13,386	115	194	69	S/L
N2DBI	13,176	104	183	72	S/L
K5HDU	12,950	117	185	70	S/L
W9FFC/2	12,596	110	188	67	S/L
N5KWN	12,337	110	169	73	S/L
K0BX	11,664	118	144	81	S20
W9CBE	9,720	103	180	54	S/L
KG5IT	7,296	80	128	57	S/L
KE4LAP	6,600	69	120	55	S/L
N2HOS	6,240	64	120	52	S/L
W3FTG	5,687	60	121	47	S/L
KV5F	5,564	67	107	52	S/L
KA5JXG	5,170	63	110	47	S/L
W8AKS/6	5,120	46	128	40	S/L
WA5IZE	5,076	69	108	47	S/L
K8CV	4,572	51	127	36	S/L
KB7OLZ	4,524	75	87	52	S/L
N2LBZ	4,080	57	102	40	S/L
WA4MCZ	3,526	54	86	41	S/L
N1OEZ	3,081	50	79	39	S/L
WF5E	3,010	44	86	35	S20
WF1B	2,772	40	84	33	S/L
WA2VYA	2,480	39	80	31	S/L
KB7OKD	648	18	36	18	S/L
W3FOE	480	27	38	24	S/L

Virgin Islands

KP2N	421,875	640	1,875	225	M/S

Oceania

Australia

VK6GOM	134,316	279	861	156	M/S

Hawaii

AH6JF	83,657	202	703	119	S/H

New Zealand

ZL2AMI	106,726	224	731	146	S/L

Phillipines

DU1SAN	11,232	72	216	52	S20
4F2KWT	90	6	18	3	S20

Check Logs:
OZ7QB, ONL383, W9CD, PJ2MI, UA2AO, 3Z0RY

Multi Operators:
DK0KRS (DA1JL,DA2ED,DA1BD,DA1EB,DA2PU,DH/KB2SRS, H/KB2SRN)
IK2SGF (IK2SGF, IK2BUF, I2GXS)
JH4UYB (JH4UYB, JL4NCF)
KF0LZ (KF0LZ, N0OSW)
KO4OM (KO4OM, KF4KL)
KP2N (KE5BK, NP2E)
OM2I (OM1II, OM3TA)
PA6WPX (PA3BBP, PA3DMH, PA3ERC, PA3EWP, PA3GBO)
RK9CWA (RW9CF,UA9CGA)
SL0ZG (SM0AJU, SM0DJZ)
SP2ZCD (SP2SCB, SP0283GD)
SP5ZIM (SP5ZIM, SP5GRU, SP5TAZ)
T94DD (T94DD, T91AAS)
VA3LM (VE3FJB, VA3CW, VE3IJM, VE3VSM, VE3MKX, VE3THR, VE3ABG)
VK6GOM (VK6GOM, VK6APW)
WS7I (WS7I, WA7EGA, WB7AVD)
WU3V/5 (WU3V, W5VSZ, W5WMU, N5SYF)

Operators:
CJ6V (VE6JAV), 7S4RY (SM4RGD),
7S5RY (SM5EIT), 7S7RY (SM7ATL)
3Z0RY (SP4TKK)

SoapBox:

The entrants had this to say about the 1995 World Wide WPX contest.

First from some Europeens: "Poor propagation and low ectivity in Europe", **SM5FUG.** "Bhutan was there for a new country, close to 60 now worked on the '95 in 95' award", **OZ5MJ.** "Conditions very poor but fun contest", so say Mike and Serge operators of **RK9CWA**. "My first contest in RTTY, Tnx!", relates **SP9JCN.** "An American contest for Americans", **7S5RY.** [Ed Not sure I egree 50 % entries from non-U.S.] "All Oso's in baudot! Did not hear any other mode, whet e pity", **DK7FP/p.** From a Short Wave Listener **ONL383**, "nothing for us... [SWL's]....(Ed's Note: I fixed that....SWL's next year!! From Wales "...enjoyed it very much, **GW4KHO** 30 Hours allows time for a reasonable rest." Another from Sweden, **SM4CMG.** "Congratulations to the new great contest!" **OH2LU** sez "Based on high OSO numbers ... good participation" "Great contest", **S51DX** "Conditions poor the first dey, but improved on Sunday with 15 opening", **OK1DIG.** **7S4RY**, explains the strange and fun WPX calls as a "callsign for the celebration of the SARTG 25th year, Vy bad conditions Stateside". "First effort as e club and contest was very exciting", **DK0KRS.** "Missed 15m USA pile-ups!", **S56A**

Now from Oceania and Asia: **ZL2AMI**, "Tough conditions but a great new contest" **VK6GOM.** "I like working prefixes...with the scoring regime, it reduces [scoring] bias" From Japen **JA3DLE/3.** "I love this contest... always envy such big numbers of NA-EU areas, hope more will join in the future from Asia-Pacific areas" **VS6BG** relates, "Wish CO would allow 2-point intracontinental OSO's like ADRS has!" **JR5JAO**, sez, "Thenks for very interesting Contest but Conditions not so good." "Participated in the RTTY contest for the first time...great pleasure", **JH4UYB.**

North American's had this to say: **VE8NC.** "WS7I, I could hear your station at any time of the day". **WA6SDM.** Jim sez, "This contest is a definite red circle on the calendar." **K4HSF**, my "..only suggestion .is to encourage more 10 meter operation...". From Louisiana, **AA5AU**. Don sez "This contest will no doubt become one of the most popular of all RTTY contests". "Didn't want to miss 1st ADRS, Now only way is UP", **N3UN.** "..very patient operators es I have found in all RTTY contests..."**KC7MJ.** Frank, **N2FF** complained , "felt a little crippled without my Ouad which blew down in November", wait until you see his new Amp. **AA5BE** relates, "ren rather 'laid-back' because of other time demands" **KE4LAP,** "..this is my first entry into e contest I loved it....everybody should try it". **WA2VYA**, points out that, "[you] must type fast, worked several new states and first VE on RTTY". "RTTY sure is e lot of fun for me", **KA5JXG** "Looking forward to next year", **K2WK.** "Highlights: Finding the RPT command in WF1B's RTTY, end working ZK3MM", **K5ED.** "Spend to much time shoveling snow...looks like e winner", **N2LBZ.** "Checklog, my software has not been updated yet", **PJ2MI** "Worked some new stations...good contest",**W1VXV.** "TS850 ecting up...was fun and hope to get the rig fixed", **K0BX.** "Frustrating on.... 40M. ..conditions not ell that good", N6GG. **AA4M/0**, points out "looks like this one will be around for a long time" **NA2M.** "Great contest, conditions could heve been better". **AB5KD**, "the first 20 minutes had me nervous...but then it picked up". "Whew, I hope the bands are better next year, C'ya in February for sure", **WS7I**. "Make room for the BIG one!". N2HOS

New award offered from LX-land

CULTURAL CITY OF EUROPE 1995 AWARD

The CULTURAL CITY OF EUROPE 1996 AWARD is the official diploma issued by the Reseau Luxembourgeois des Amateurs d'Ondes Courtes (RL), founding member society of IARU, to celebrate the fact that the capital city of Luxembourg has been chosen cultural city of Europe during the year 1996.

The award is available to radio-amateurs and short-wave listeners. It is issued to those, who have contacted or heard Luxembourg amateur radio stations between January 1, 1996 and December 31, 1996.

Stations must score at least 96 points.

Each contact with an LX-station counts: 10 points for Europeans
20 points for non-Europeans

Each contact with a club-station counts: 16 points for Europeans
30 points for non-Europeans

Valid club-station call-signs are: LX95VEC, LXORL, LXOITU

Each LX-station may be counted only once on each band independent of mode. There are no restrictions regarding band or mode.

Fees: 12 IRC's, 300 LUF, 10 USD, 16 DM.
Other forms of payment will not be accepted.

A GCR-list including date, hour, call, frequency and mode for each contact, certified by the Award Manager of the local IARU society, a club official, or two licensed radio-amateurs should be sent to:

Award Manager LXITI Carlo
P.O.Box 1352, L-1013 LUXEMBOURG, LUXEMBOU RG(Europe)
also include a self-adhesive label with your address, before December 31 1996.

BULLETIN FROM VISALIA

By Glenn Vinson W6OTC

The 46th Annual International DX Convention was held at Visalia, CA on April 21-23. Operators from 3D0AZ (Swaziland), 3D2CU (Conway Reef), YK0A (Syria) and BS7H (Scarborough Reef) all presented slide shows describing their respective operations.

RTTY News: according to Garry, NI6T, 3D2CU made almost 500 RTTY contacts from Conway Reef, mostly on 15 meters. These contacts were divided roughly 50% North American, 40% Japan and 10% Europe. The well-publicized disagreements between the operators over operating time for RTTY, aired by Garry while on the island and reported on several DX spotting packet networks in the U.S., formed a part of the discussion of the RTTY Forum focusing on how RTTY operations can get a fair share of operating time during major Dxpeditions. A related topic of the RTTY Forum was 'how to increase the RTTY QSO rate for DX stations' (the slow rate of RTTY being a primary grips of the SSB/CW operators on Dxpeditions). Discussed were proposed solutions such as following standard contest operating techniques including minimizing repeats of calls, eliminating repeats of signal reports, the calling station not sending the callsign of the DX station as well as by eliminating all other extraneous information from the exchange.

Other news: the central item of discussion and controversy during the convention was the decision of the ARRL Awards Committee to add a minimum-size rule to Point 2 (separation by water) of the Countries List Criteria in the DXCC rules. The adoption of this rule on April 20 was widely seen as a deliberate slap at the Scarborough Reef operation, although Bill Kennamer, DXCC Specialist from the ARRL, repeatedly stated that "no decision" has yet been made on the Dxpedition's application for DXCC status. A straw vote during the DX Forum showed overwhelming support among those present for approving DXCC country status for Scarborough Reef, limiting the application, if any, of the new rule to future potential DXCC Countries.
73, Glenn.

1994 TARA RTTY SPRINT SCORES

(Troy Amateur Radio Association, Inc.)

CALL	SCORE	QSO'S	HP
AB5KD	7896	168	X-1ST
AA5AU	5207	127	1ST
VE7SAY	4816	112	2ND
K4HSF	4810	130	X-2ND
K2TW	4028	106	X-3RD
N9CKC	3815	109	X
VE7KD	3808	119	X
VY2SS	3706	109	2ND
K7DSR	3608	88	3RD
KE6XJ	3276	84	
WA6SDM	3234	98	X
W6/G0AZT	3078	81	
VE6ZX	2592	72	
WA6VZI	2112	64	
N9BHH	1800	72	
N1RCT	1776	56	
N1JEB	1550	62	
V31JU	1326	51	
W1HFN	1222	47	
N1OAZ	1196	52	
HK1LAQ	1008	42	
N2LBZ	612	34	
WM2U	527	31	
W2JGR/0	512	32	
KC3ST	480	30	
WB2HKR	464	29	
JA3DLE/1	392	28	
N2OJZ	375	25	
WA2UET	368	23	

DX News

The latest digi-doings from around the globe

by Jules Freundlich, W2JGR • 825 Summit Ave., Apt. 1401 • Minneapolis, MN 55403

On a springtime Monday morning I am in the shack, sitting at the rig and just starting to think about 20 meter RTTY. The antenna is pointed to Southeast Asia. XU95HA had been spotted a few days earlier on the local Packet Cluster network, while I was out of the house. This is usually about the time (1400Z) that, if propagation is favorable, I might be able to hear that elusive XU station. I have been trying for years to work that country on RTTY. As a result of a telephone alert from Mike, WB9B, I hear a tremendous pileup on the low end of the RTTY slot (14082 khz) The cacophony is deafening. The only thing I can make out are stations in the USA constantly calling with their callsigns, with no letup. It is apparent there must be something good in there!

Miraculously, after listening for about five minutes, a short break in the din allows a barely discernible signal to creep through with "@#^#&**$#@TH IS PHNOM PENH@$%&*%%". Aha! The elusive one is on that frequency and working transceive, as Mike had said. Since the antenna is already pointed where it should be, my fingers fly to the power switch on the AL-80A amplifier which has been pretuned for 20 meters. My fingers are poised over the keyboard waiting for a lull in the bedlam which never comes, I find it impossible to hear the XU station through the madhouse of people blindly calling. I don't have any idea how many QSOs were made by the station, that morning. It could not have been very many. With my frustration level reaching 60db over something, my fingers never touched the keys. Why should they? If he came back to me I would never know it.

I thought to myself "How long does it take some newcomers on the hot side of the pileup to learn the age old technique of listening off their transmitting frequency.?"

When I started ham radio in 1935, in pre-RTTY days, there were no such things as transceivers. You had a separate receiver and a separate transmitter. When you called CQ, you "tuned the band". You never thought particularly of listening on your own frequency. The development of the transceiver changed all that. Transmitting and receiving on the same frequency became the order of the day. Nowadays, it is the exception to work split. However, working split becomes an absolute necessity for successful DXing, from a rare or semirare country.

The next day, Tuesday, it is raining cats and dogs, so the ham shack is the place to be. I am fooling with Pactor, down between 14069 and 14080 khz. At 1401Z, someone spots the XU, on RTTY, on the packetcluster. I tune to 14082 khz. Lo and behold! There is XU95HA clear as a bell, with a good robust signal. He(she?) is having a nice run of QSOs, working both the USA and Europe. Conditions are really good. I shift VFO's, and scan up a few khz. From the distribution of the callers it appears he(she?) is listening up about one to four khz.

There are plenty of stations in there, including yours truly now, QRMing each other, but his (her?) transmissions are solid copy. This leads to another frustration, but a minor one to be sure. We learn over and over again their QTH city, names Judit and Sanyi, XU7VK, and their QSL manager HA0HW. I estimate the QSO rate could have doubled had that information been given out every five minutes, instead of in almost every QSO. But complaining about this detail is trivial. The important thing is they have learned to adapt; they are on the air on RTTY, and Mother Nature was playing her propagation cards just right. At precisely 1430Z the station announced it was QRT. And so it remained for that day, as far as I know. I did not get through that day.

The following day, Wednesday, was a different story. I had the Omni VI A-VFO frequency set to 14080 khz and was doing busy work nearby. Just at 1400Z I heard the XU calling CQ, and asking to be called between 14081 and 14084 khz. The signal was not particularly strong, but was quite readable. I thought to myself..."This is it". After setting the B VFO to 14084 khz, and pressing the SPLIT key, I blasted out a few calls. QSYing back on-receive to his frequency, my heart almost stopped as I heard a strong Pactor signal in his place. "Oh," I thought, "this is going to be the start of 3Y0PI RTTY all over again." I clicked on the Pactor button on the RagChew screen, and saw that someone was passing traffic. "No matter," I mused, "let's give this the old college try." A few more calls, and then the mode transmitting on his frequency was Amtor FEC. On the next standby it was Amtor ARO. Under it, I could just make out that the XU was calling QRZ. The timing was right. On my next standby there was a short enough pause in the interference for me to print JGR in the midst of pulsed garbage. That was all I was able to copy. I am sure I am in his(her?) log, but it was a poor excuse for confirming a long sought after RTTY country.

I felt uneasy about the ethical aspect of calling such a marginal contact a valid QSO. So I made it a point of being at the right place, at the right time, on the next day, Thursday. A little before 1400Z I left my half eaten bowl of Corn Flakes to see what was happening. Sure enough, there was XU95HA on 14080 khz, just signing SK with someone. There was no sign of Pactor or Amtor there. The B-VFO was still in its setting from the previous day at 14084 khz. One hand went to the amplifier power switch; one hit the SPLIT key; bang went the keyboard; and out went my signal. I saw QRZ QRZ. Again the timing was right. I sent my call three times and held my breath. Then, clear as a bell, a good S7-8 reply came back to me. I had my legitimate QSO with full exchanges and no ambiguity. The QSL card to HA0HW was in the Loring Station Post Office before noon, with a bit more enclosed than required for return postage from Hungary.

Those of you who have been DXing on RTTY for some time can relate to the above anecdote. Those who are new to the game should be forewarned to expect frustration at times, when chasing a wanted DX station. All will experience the same satisfaction (exhilaration?) when you finally get through under difficult conditions.

Again, a friendly word of advice to rare or semirare RTTY DX. Please operate split and stay away from 14080 khz. That is a no-man's land, and burst type signals like Amtor, Pactor, and G-TOR will generally prevail enough to thwart any RTTYer.

SMILEYS

As some of you may have guessed from remarks in my previous columns, Peter Casier, ON6TT is one of my favorite people. Peter bestowed the sobriquet "Crazy Peter" upon himself, so I have no hesitation in using it. I first knew of him as one of the operators of the 3Y0PI Peter I DXpedition. Subsequently I had the pleasure of meeting him at Dayton in 1994. I found him to be charming, smart, humorous, and a RTTY operator. Since his return home from Peter I island, Peter went off to tropical Africa, serving humanitarian causes. During his two months mission he made about 12000 contacts as 4U0ITU, 4U9Q, and 9Q5TT. Most of it was on phone, but also 700 were on RTTY. I had the pleasure of several short chats with him at 9Q5TT. He had hoped to put 9X and 9U on the air also, but that was not possible during his stay in Africa. Upon arriving home in Belgium, Peter sent out a widely distributed message called "Smileys and others from the DX side." Here are some excerpts for your enjoyment:

"I'm sure that each of you who once were active from the DX-side had funny stuff happening to you. During my past trip, I took some notes on things overheard or experienced...... At 9Q5TT.. some random observations: One thought: 90% of the stateside hams do not think a QSO is complete without giving their name and state. No offense meant, just a matter of fact!

No matter how fast the pileup, 90% has to throw in their name and state, and of those, another 50% will insist that you give your name and QTH too. My QTH of Vladivostok must have been a surprise for some...hi.- hey I've got to have some fun too! . . . If you are a RTTY nut, and plan to be active from the DX side, watch the "<dot><dot> guys". Those caused half of my grey hair. How do I mean "<dot><dot> guys?"

Imagine you run an RTTY pileup. Good speed, 2-3 QSOs per minute, and then a <dot><dot> guys passes along. Something like this:
me: XX8XX XX8XX 599 BK
him: 9Q5TT DE XX8XX 599 599 BK
<dot><dot><dot><dot><dot><dot><dot><dot><dot><dot><dot><dot><dot><dot
><dot><dot>
NAME: GERALD GERALD
QTH: WINTERSFIELD NY AT 40 KM EAST OF MARLBORO,
MARLBORO LIKE IN THE CIGARETTTES HIHI
RIG: KENWOOD TS-430S
ANTENNA:DIPOLE UNDER THE ROOF (HOMEMADE)
COAX: RG213
COMPUTER CLONE (386 AT 25 MHZ)
MODEM: PK232 PK232
PROGRAM: PACKRATT PACKRATT
HOBBIES: GARDENING, READING AND HAMRADIO
WIFE: BRENDA BRENDA
<dot><dot><dot><dot><dot><dot><dot><dot>dot><dot><dot><dot><dot<dot><
dot><dot>
WE HOPE TO SEE YOU SOON AGAIN, AND SAY 73 73 73, PLEASE QSL VIA BURO OR DIRECT TO GERALD MCFAST 123 EASYDRIVE WINTERSFIELD 12345 NY
<dot><dot><dot><dot><dot><dot><dot><dot><dot><dot><dot><dot><dot>
<dot><dot>

Well, those are some of the smileys for this trip.
73 es watch out for the <dot><dot> guys!
Peter ON6TT"

ON THE CUTTING EDGE

In a new display of inventiveness, Bob Schmieder, KK6EK, of 3Y0PI fame, and Carlos Nascimento, NP4IW/6 have announced plans for an unique DXpedition. This will be of particular interest to those of us devoted to digital technology. Here is what Bob says: "Planning is proceeding nicely for the Sept. 1995 expedition to Easter Island and Salas y Gomez. The purpose of the project is to develop new technology and techniques that will enhance DXing and DXpeditioning from rare and remote sites. We expect to be able to provide next-day public posting of logs on Internet servers, BBSs, and packet clusters, and to send out QSLs within 24 hours of the QSO. EI/SyG is not a DXCC-rare country; rather, the expedition seeks to provide contacts on the rarer band/modes, and to find new ways for a DXpedition to serve the varied desires of the DXing community. We invite you to help us with this fun and interesting project.

The radio team includes the following: K4UUE, XE1XA, AH9B, XE1L, WT8S, G0LMX, W6MKB, W4ETO, WJ2O, K0IR, HB9AEE, KA3MUF, AA6TT, W3UM, PA0ERA, W8FMG, W6YA, NP4IW, N1OCS, K9JSC, HB9AHL, KK6EK, W0ZV, and KF0UI.

The team will arrive on Easter Island 2 Sept. 1995 for a 3-week stay. Callsigns will be XR0Y (Easter Island) and XR0Z (Salas y Gomez), We will operate a beacon as XR0Y/B.

In addition to the radio science, we will be using divers to explore undocumented areas around EI and SyG, and to search for archaeological evidence relating to ancient legends. A book, video, and CD-ROM will document the project.

We are seeking stations to collaborate with the expedition as anchors. We want stations with Internet, ham radio, and some digital capability (BBS, packet etc.) to receive the logs and other data and post it to servers or pass it to other sites. This will be a development/debug process. If it goes well, we will work with future expedition teams going to rare and remote locations to provide similar capabilities.

The project needs funds and equipment. If you can help, or would like to offer free advice, please contact us. Contributions are tax-deductible. Most of all, please plan to contact the expedition in September, to help DXing move toward the 21st century!

Robert Schmieder KK6EK, 4295 Walnut Blvd., Walnut Creek, CA 94596
(510) 934-3735 (voice and fax) • Internet: cordell@ccnet.com"

Here is a great opportunity to be a DXpedition participant, from the comfort of your own home shack, in what looks to be a really imaginative effort. I wonder how many of our readers will volunteer to participate.

POSTAGE RATES

Jim, W6CF reminds us that the recent changes in the dollar/yen exchange rate have played havoc with postage rates. In mid April, the cost in USD for a surface mail QSL from Japan was nearly $1.15, while the cost of an airmail reply was nearly $1.40. Jim says a buck won't cut it anymore. He suggests sending $2.00 postage or expect delays. Tomo, JH2PDS/1 suggests either $2.00, or an IRC, old or new. That sounds like a good way to save a few cents. By the time you read this, the above figures may be obsolete if the dollar continues to weaken. Check the DX bulletins for updates.

DX DOINGS

(Signals are 45.5 Baud RTTY unless noted.)

Note that the DX Doings below include activity as reported from world-wide sources. Therefore, some stations may not be seen, in your particular part of the world, at the hours indicated. To make best use of the data given, couple it with your knowledge of propagation paths to your QTH. For help in this regard, see the monthly propagation charts in QST, and listen to the hourly propagation forecasts at 18 minutes past each hour on WWV. Good luck!

ANTARCTICA, VK0 - VK0FPS continues to satisfy Pactor users on 14077 khz around 1000Z. QSL via VK3MA.

AUSTRALIA, VK - VK3JW may be found operating Pactor on 14073 khz around 0440Z. QSL via CBA.

BENIN, TY - Peter, TY1PS, in spite of his work in advanced digital technology, still keeps his RTTY keyboard humming. You may find him on 20 meters around 2230Z. QSL to Peter Schultze, B.P. 06-2535, Cotonou, Benin.

CAMBODIA, XU - In addition to the information at the beginning of this months column, note that Sanyi, XU7VK also may be sometimes found on 20 meters around 0100Z. Both XU7VK and XU95HA use HA0HW as their QSL manager. His address is Laszlo Szabo, Box 24, H-4151, Puspokladany, Hungary.

CENTRAL AFRICAN REPUBLIC, TL - TL8MS can now sometimes be found on Pactor on 14069 khz around 0930Z. QSL to DL6NW.

DJIBOUTI, J2 - Jean, J28JJ still gives out new ones to the deserving on 20 meters around 2300Z. QSL via F6HGO.

EAST MALAYSIA, 9M8 - Dave, 9M8BT, in Sarawak, puts a good signal into the U.S.A. on 20 meters between 1315Z and 1430Z, or if propagation permits you may catch him after 2330Z. QSL to N5FTR. You can generally expect a response in about two weeks.

FAROE IS., OY - This semirare RTTY country has OY4HC on 20 meters around 0850Z, and OY4HQ around 2200Z. QSL routes are needed.

GLORIOSO, FR/G - Look for FR5HE/G to come up here in mid-August.

BRUNEI, V8 - Gerald, V85GA will be happy to confirm Brunei for you. He normally works 20 meters around 1400-1530Z. QSL direct to Gerald A. Ashcroft, P.O. Box 1200, B.S.B. 1912, Brunei, Borneo.

KENYA, 5Z - 5Z4FM operates Pactor around 1550Z on 14069 khz. QSL route is needed.

MALAGASY, 5R - If you would like to make a sked with 5R8DS, you can drop him a note at the ZS5S mailbox.

MOUNT ATHOS, SV/A - Monk Apollo, SV2ASP/A continues to be active, mostly on the weekends. Look for him around 1500Z in the low end of the 20 meter RTTY slot. For QSL route see the DJ, p.11, Oct. 1994. I am told this address is a good one, and brings a response within a few weeks.

MAURITANIA, 5T - 5T5JC can be found on 20 meters as late as 2100Z. QSL to F6FNU.

NAMIBIA, V5 - V51P likes 20 meters early in the UTC day, around 0630-0730Z. QSL to P.O. Box 9000, Windhoek, Namibia

NEW CALEDONIA, FK - Another active operator from this Pacific paradise is FK8HA, who may be found on 20 meters around 0630Z. QSL route is needed.

PHILLIPINES, DU - Look for DU1BJD on 20 meters as early as 1430Z, and as late as 1700Z. DU1RAK operates around 1030Z. QSL routes are needed.

SAUDI ARABIA , 7Z - 7Z1AB operates Pactor around 1430z on 14080 Khz. QSL via KN4F.

SINGAPORE, 9V - When propagation is good to Southeast Asia you might find 9V1ZS on 20 meters around 1815Z.

SOUTH AFRICA, ZS - Vince, ZS6BOK is on 20 meters around 1430Z. QSL via CBA. I wonder if he still uses the same beautiful QSL he sent me confirming our SSB QSO in January 1977.

SO. SHETLANDS, VP8 - Andy, SP2GOW operating VP8CQS from the Polish Base finally retrieved the IRDXA RTTY gear that was being held in storage for him at Puenta Arenas, Chile. His RTTY signal burst upon the scene in early April. He could be found active on 20 meters, almost any time around the clock, depending upon propagation. QSL to DL1EHH.

TAIWAN, BV - BV7WB works 20 meters around 1730Z. QSL route is needed.

THAILAND, HS - HS0ZAA is generally active in the middle of the UTC day on 20 meters around 1430-1530Z. Depending on propagation to your area, he sometimes shows as early as 1315Z. North Americans QSL to KM1R; all others to NY2E. Look for HS0ZAS on the same band around 1915Z. QSL route is needed for this one.

TONGA, A3 - A35CT will take your calls on 20 meters between 2030Z and 2100Z. Or, you may find him on 18108 khz around 0500Z. Let's give that 17 meter band some more more activity. It's a real sleeper.

WEST MALAYSIA, 9M2 - 9M2CW operates Pactor on 14081 khz at around 0930Z. If you work him, you might suggest he move his Pactor operating to the region below 14080 khz. QSL route is needed.

HAVE DX NEWS?

Leave a Pactor message at W5KSI.#NOLA.LA.NA.USA mbx (1), or via any of the following: Packet: W2JGR @ WB0GDB.#STP.MN.USA.NA
My Pactor MBX on 14070 khz. • Internet: w2jgr@millcomm.com
Telephone: (612) 377 7269 • New FAX number: (612) 377 3600 (mark for my attention) USPS to my CBA.

THANKS - Thanks to the following for all your information:
I5FLN, JH1MGI, JH2PDS/1, K6OZL, KK6EK, N3UN, NP4IW/6, ON6TT, W5KSI, WB2CJL, W6CF, WB9B, N0FAC, and ZS5S.

See you all next month. For now, bye bye from Minnesota,
PAX....73 de Jules W2JGR

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1. W5KSI scans 7069, 7071, 7075.5, 7076, 14068, 14070, 14073.5, 14074, 14079, 21074, 21075, and 21079 khz.

Contesting

Coming Events and Awards

by Rich Lawton, N6GG • 14395 Bevers Way • Pioneer, CA 95666

RTTY Contests - Coming Events

Date:	Contest:	
JUN 10-11	ANARTS WW Digital	(Australian)
JUL 2	DARC CORONA 10M Digi	(German)
JUL 8-9	BARTG Amtor/Pactor	(English)
JUL 15-16	DARC HF RTTY	(German)
AUG 19-20	SARTG WW RTTY	(Sweden)

— — REMINDERS: — —

BARTG SPRING RTTY (March '95) log entry deadline is May 31, 1995. Mail entry to:

JOHN BARBER, G4SKA
PO BOX 8
TIVERTON, DEVON, EX16 5YU
ENGLAND

EA WW RTTY (April '95) log entries deadline is June 9, 1995. Mail entry to:

Antonio Alcolado, EA1MV
Box 240
09400 Aranda de Duero
SPAIN

SARTG WW Amtor (April '95) log entries deadline is June 10, 1995. Mail entry to:

Bo Ohlsson, SM5CMG
Skulsta 1258
S-710 41 Fellingsbro
SWEDEN

SP DX RTTY (April '95) log entries deadline is June 15, 1995. Mail entry to:

SP DX RTTY Contest Manager
Christopher Ulatowski, SP2UUU
P. O. BOX 253
81-963 GDYNIA 1
POLAND

VOLTA RTTY DX (May '95) log entries deadline is July 30, 1995. Mail entry to:

Francesco Di Michele, I2DMI
P.O. Box 55
22063 CANTU
ITALY

— — COMING UP: — —

— ANARTS WW RTTY/Digital Contest —

June 10-11, 1995

Sponsored by Australian National Amateur Radio Teleprinter Society
Second full weekend in June (Ref: ANARTS, VK2BQS)

CONTEST PERIOD: from 0000Z Sat. to 2400Z Sun. (48 hours) Maximum operating time allowed: 30 hours for Single op entries and SWLs. There are no restrictions on the duration of rest periods. Multi-op stations may operate the entire contest period. Summary of operating times must be submitted with each score.

BANDS: 80, 40, 20, 15, and 10M. (five bands)

CLASSES: (A) Single-op; (B) Multi-op; and (C) SWL.

MODES: All digital modes permitted; RTTY, AMTOR, FEC, and Packet.

EXCHANGE: RST + Zone + Time (UTC).

MULTIPLIERS: Each ARRL DXCC Country, and each call district of VK, JA, VE, and W count as separate countries on each band. QSO's with one's own country is not valid for multiplier count. (W6 may work W7 or W5 for mult, but not W6.) Each continent QSO counts as a multiplier (maximum of six).

QSO POINTS: Use Exchange Points Table to determine QSO points. (See the Table on page 20 of April '93 issue of RTTY Journal) Table is also in the RTTY Contester's Guide, page 24.

SCORING: Total QSO points x total multipliers x number of continents worked. (max. 6) After the above calculations, world stations add 100 points for each VK QSO on 20M, 200 points for each VK QSO on 15M, 300 points for each QSO on 10M, 400 points for each VK QSO on 40M, and 500 points for each VK QSO on 80M.

AWARDS: Awards will be issued for 1st, 2nd, and 3rd place on world basis, and also on a country basis.

LOGS: Separate logsheets are required for each band. Logs must show: BAND, DATE and TIME (UTC), CALLSIGN, MESSAGE Sent and Received, NEW MULTIPLIERS, and QSO POINTS. Summary sheet must show: Your callsign, name and address of operator, bands used, points claimed for each band, number of VK stations QSOed, total points claimed, and signature/s. Multi-op station logs must contain the signatures and callsigns of each operator.

Logs must be received by the Contest Committee by September 1. Mail to:

Contest Manager, VK2BQS
Jim Swan
P.O. Box 93
TOONGABBIE, N.S.W. 2146
AUSTRALIA

COMMENTS: For single op stations, this is a 30 hour contest (out of the 48 hours). Multi-op stations may operate the full 48 hours. QSO points are determined by the Exchange Points Table. This table is based on the 40 CQ Zones and is arranged so that the further away the QSO is from your Zone, the higher the points scored. (**PLEASE NOTE:** CQ Zones DO NOT count as multipliers.) Each VK, JA, VE, and W call areas count as separate countries on each band. This contest counts band multipliers, making the low bands more active, and giving more bonus QSO points, too. Don't forget to work the continents for additional mults. Try to keep track of your operating time, as single ops are only allowed a maximum of 30 hours out of the 48 hour period. Your Summary Sheet requires that you list your TIME ON/OFF records.

— DARC CORONA 10M Digital Contest —

July 2, 1995

Sponsored by Deutscher Amateur-Radio-Club e.V. (DARC)
(Ref: DF5BX)

NOTE: This contest occurs 4 times a year on the first Sunday of March, July, September, and November.

CONTEST PERIOD: Sunday, from 1100Z to 1700Z (6 hours)

MODES: RTTY, AMTOR, PACTOR, and CLOVER

BANDS: 10M ONLY

CLASSES: 1 - Single op 2 - SWL

CONTEST CALL: "CQ CORONA TEST"

EXCHANGE: RST + QSO number, starting with 001.

CONTACTS: Additional QSOs are allowed with same station on different mode.

MULTIPLIERS: Each DXCC/WAE country, and each call district in JA,VE,and W.

QSO POINTS: Count 1 point for each completed QSO.

FINAL SCORE: Total QSOs x total multipliers.

AWARDS: To top stations in each class, country, and district mentioned above.

LOGS: Use separate logsheets for each mode. Logsheets must contain: Date, Mode, Time UTC, Callsign, message sent/received, first-time multiplier prefix, and QSO points. Also required is a Summary sheet with a list of claimed multipliers. Comments are very much appreciated.

DEADLINES: All logs must be postmarked within 4 weeks of the Contest. Mail to:

Werner LUDWIG, DF5BX
P.O. Box 12 70
D—49110 Georgsmarienhutte
GERMANY

WAE country list as of 1 MAR 94, (72 countries):

1A0
3A
4J1
4U/ITU
4U/VIC
9A
9H
C3
CT
CU
DL
EA
EA6
EI
ER
ES
EU
F
G
GD
GI
GJ
GM
GM/sh
GU
GW
HA
HB
HB0
HV
I
IS
IT
JW/bear
JW/mayen
LA
LX
LY
LZ
OE
OH
OH0
OJ0
OK
OM
ON
OY
OZ
PA
R1/fjl
R1/mvi
RA/eu
RA2
S5
SM
SP
SV
SV5
SV9
SY
T7
T9
TA1
TF
TK
UR
YL
YO
YU
Z3

ZA
ZB

COMMENTS: The following major changes were made in February '95:
Multi-op class deleted. Exchange is now RST + QSO nr. (name and state deleted) Mode change for additional QSO now allowed immediately after first mode QSO.
USA states do NOT count as mults - only call districts.
VK districts no longer count as mults.

This is a 6-hour all-digital (no Packet) WW 10M contest. It occurs on Sundays, 4 times a year. Count multipliers for each country worked on DXCC/WAE country list, and for each JA, VE, and W call areas. This means that your FIRST JA, VE, and W QSO in the contest will also count for a DXCC/WAE country mult.

— BARTG Amtor/Pactor Contest —

July 8-9, 1995

Sponsored by British Amateur Radio Teledata Group
Occurs 2nd full weekend in July. Ref: (BARTG, G4SKA)

CONTEST PERIOD:
Amtor: From 0000Z Saturday to 0000Z Sunday (24 hours)
Pactor: From 0000Z Sunday to 0000Z Monday (24 hours)
No rest periods required.

BANDS: 80, 40, 20, 15, and 10M

CATEGORIES:
1. Single op, Amtor
2. Single op, Pactor
3. Single op, Combined
4. Multi-op, Combined
5. SWL

Single transmitter only

EXCHANGE: RST + QSO nr. + TIME in UTC.
Use FEC for calling, and ARQ for contest message exchange.

MULTIPLIERS: Each DXCC country, including first QSO with W, VE, and VK, counts as a multiplier on each band. Also, each call district in W, VE, and VK will count as an additional multiplier on each band. In addition, each continent (6) counts once, not once per band. Stations entering in combined categories count multipliers only once per band, *regardless of mode.*

QSO POINTS: Count 1 point for each completed QSO. Same station may be worked on other bands. Duplicate QSOs on same band receive zero points and must be clearly marked in the log.

FINAL SCORE: Total QSO points x total multipliers x number of continents (max 6)

LOGS: Use separate logsheets for each band. Logs must show: BAND, DATE and TIME, MODE, CALLSIGN, MESSAGE Sent and Received, new MULTS, and POINTS claimed. Summary sheet must show full scoring, times of operation, and address for correspondence. Include names and callsigns of all multi-op station operators. Any incomplete entries will be classified as check logs. Computer generated logs containing all specified information are welcome.

DEADLINE: All logs must be received by September 10 to qualify.
Please send your contest or check logs to:

JOHN BARBER G4SKA
PO BOX 8
TIVERTON, DEVON
EX16 5YU, ENGLAND

AWARDS: Trophies will be awarded to the winning stations in each category, and certificates will be awarded to the top 3 stations in each category and the top 3 single operators for each mode in each continent.

Your comments on the contest would be much appreciated. Please include them with your log.

COMMENTS: BARTG has brought in their well-known and well-liked RTTY contest format and fitted into a unique Amtor/Pactor combination mode. It's a bright idea, and a way to spread contesters around in the digital modes. The contest will also provide a clever comparison as to which mode has the advantage in QSO rates, and FEC pileups, and switching from FEC to ARQ in the QRM, all in one weekend. Place your bets: Which mode has the edge? It looks like split frequency operation could be used to advantage, but might be awkward to find frequency areas clear of QRMing other splits. Notice that there are no rest periods. Each mode is 24 hours long: first is Amtor, then Pactor. Any station worked on Amtor may be worked again the following day using Pactor. But combined entries count mults only once per band, *regardless of mode.* This means that if you work a PY station for a mult on 20M Amtor, you can't count a 20M PY as a mult again when you work him later on Pactor. Stay tuned (up).

-+- -+- *Keyboard Labeling for Contests* -+- -+-

Using contesting software for the first time can be hazardous to your health. It reminds me of my high school days before WW II, when I took a typing class. The manual typewriters were Underwood, with the "return key" hook sticking out over the keyboard. The left hand was assigned to slam the carriage back to the left margin and advance the paper. (Today's keyboards the *right* hand does that job, simply by tapping the "Enter" key.) But the real panic was; *none of the keys were labeled!* In order to know which key to press we were supposed to look up at the blackboard behind the teacher at a chart laid out to simulate the keyboard. We nicknamed this crazy process, "Forced Touch Typing." But it worked.

Today's computer keyboards are labeled all right, but there's the Function Keys to figure out, along with the Shift, Ctrl, and Alt combinations. I think the touch typist has a slight advantage when it comes to typing a callsign, but not when contemplating which "F" key - or combo - to use.

It's interesting to see pictures of today's contester at his keyboard. Each has their own way of trying to keep from pressing the wrong key. Some use "Post-it" stick-on tags placed near the "F" keys. Others use cut-up address labels. Some have made "surround-template" labels to help identify their "Panic Buttons." It's frantic time! If you press the wrong key your transmitter can come on and call CQ and completely ignore that new country you just raised!

Here's what I've done: color-code ALL action keys and combinations for the contest. Following WordPerfect's color selections for Shift, Ctrl, and Alt, I use **Avery self-adhesive removable labels**: green for Shift; red for Ctrl; and blue for Alt. These labels are placed directly on top of the selected keys. In addition, *I chose bright orange for ALL keys that immediately cause the rig to transmit.*

It turns out that Avery makes a 1/2 x 3/4 inch size that when cut in half is perfect for placing right on the keyboard keys. For the few alphabet keys that are needed, a paper punch is used to make a 1/4 inch colored dot to place on the lower right corner of the key. The color of the dot automatically tells which "Combo-key" to press. An abbreviated letter or 3 can indicate the action.

How to label the labels? I use "QUiK STiK RUB-ON" letters and numbers, from E-Z Industries (1-800/638-1684). They are like we use for labeling panels on home brew projects. Mine are #790, black 1/8", (12pt) HELVETICA. These labels and rub-on letters are available at most office supply stores.

My software is *RTTY by WF1B*, so each of my Function Keys have a bright orange top with the proper "F1, F2, etc." in the center of the label. Right under the "F" is room for 4 capital letters. For instance, "F1" has "CQ" right below it. "F2" has "EXCH" below it, and so on. Two other keys have a bright orange top: "Insert" which is labeled "Call + Exch," and "Page Dn" which is labeled "Page Dn" in the middle, with "QRZ?" on top and "Log" on bottom.

To help with the combo keys, I put a green square on each of the 2 "Shift" keys, a red square on each of the 2 "Ctrl" keys, and a blue square on each of the 2 "Alt" keys.

The "Esc" key has a bright red top labeled "Esc" with "STOP" right under it. This is the true **"STOP EVERYTHING!"** button that clears the transmit buffer and returns rig back to receive.

The "Home" key has a light green top labeled "PUT CALL." It puts the latest highlighted call in the transmit window. And, finally the "End" key has a light green 1/4 inch label with the word "Log" which logs the QSO.

Some hints for a first-class job: First, *wash your hands!*
Using Q-tips, clean keytops thoroughly with rubbing alcohol and dry them.
Rub the letters on the label, then cut label and backing together.
Separate label from backing with an Exacto knife, and, as the label sticks to the knife, carefully place the label on the key.
If the label slips off the knife blade and down between the keys, say, *"Oh, for pity's sake!"* a couple of times before fetching tweezers for fetching.

These labels are very durable and have lasted for several years now. They've really made contesting more enjoyable for me. Give it a try. It's one more way to avoid scratching your nails or biting your head when you run into a fast, impatient op in some rare spot who can't wait for you to figure out what keys to press. And don't forget to use **Rule of Thumb Nr. 1: Keep thumb out of mouth!**

((73)) See you in the pileups, Rich, N6GG

P.S.

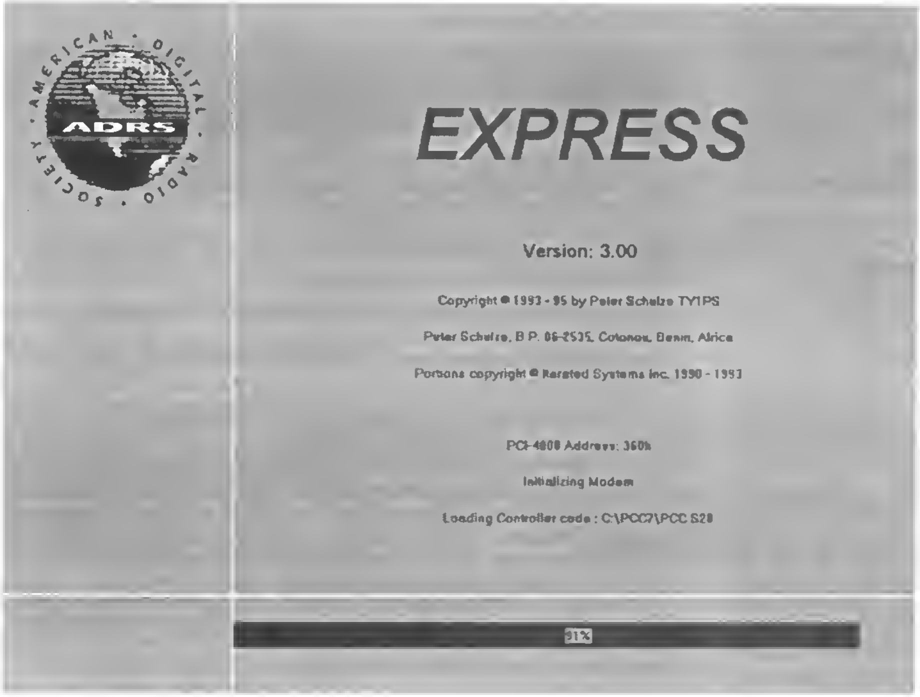
...THINK...

If you think you are beaten, you are.
If you think you dare not, you don't.
If you know you can win, but think you can't...
It's almost a cinch you won't.

EXPRESS 3.0

A Quick Peek

by Jim Mortensen, N2HOS • PO Box 328 • Indian Rocks Beach, FL 34635
CompuServe ID: 71573,1077



Version: 3.00

Copyright © 1993 - 95 by Peter Schulze TY1PS

Peter Schulze, B P. 06-2535, Cotonou, Benin, Africa

Portions copyright © Kerated Systems Inc. 1990 - 1993

PCI-4000 Address: 360h

Initializing Modem

Loading Controller code : C:\PCC7\PCC S28

Fig. 1: Introduction Screen

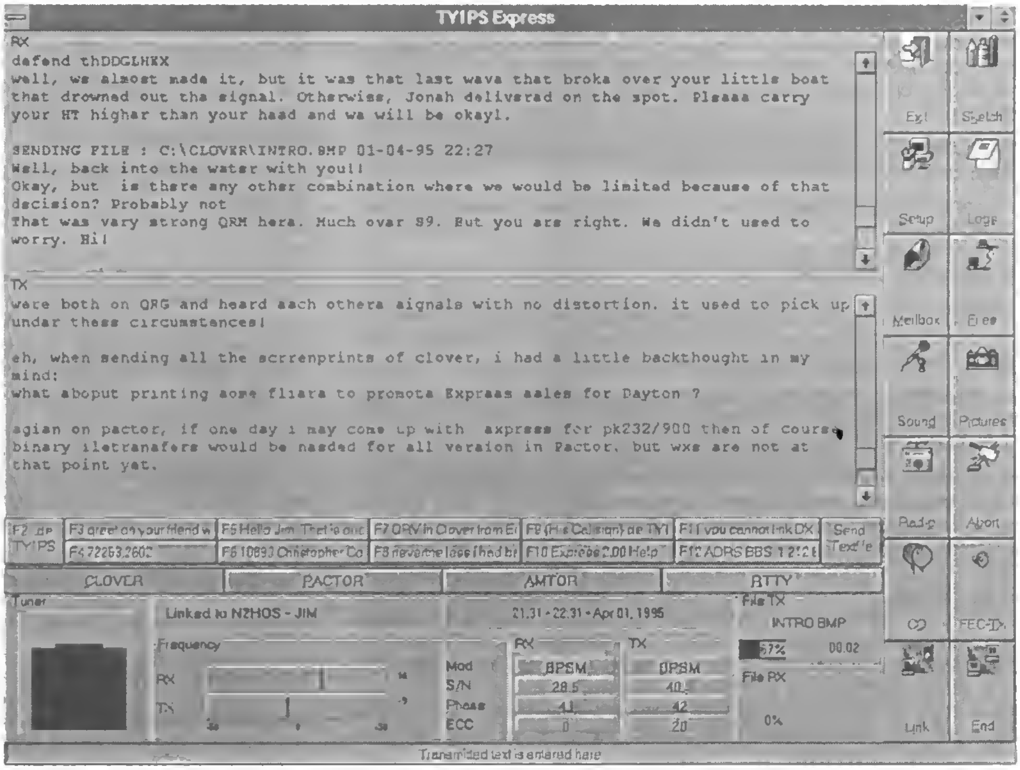
Peter TYIPS and his wife Bibi arrived in Indian Rocks Beach the evening of April 23rd for a brief stay before journeying on to Dayton. As they stepped off the plane and into the TPA Terminal he furtively slipped a small parcel into my jacket pocket, much like a fictional spy making a handoff in the old days of the cold war, hoping all the while that I wouldn't notice. I did. Not knowing whether there were any agents watching our every move or not, and since I knew exactly what was in the package anyway, I said not a word. I didn't want to hurt his feelings that early in their visit... and besides, they had been on airplanes for over 24 hours! But I let him have it a few days later for you see he was at least seven days late in delivering my copy of Express 3.0!! That just doesn't happen in the software business these days.

Oh, he had excuses and claimed that all of it had been sent to me in bits and pieces over the preceding two weeks. Besides, "Everybody delivers late." And that was partially true for I had indeed extracted the screen prints used in this brief article from those files transferred via HF links. Yes, he did transmit the myriad .VBX and .DLL files some twenty days ago. And, he did indeed transmit the Express.exe file, all .08 Megs of it, on Monday April 17th. But while assuring me that I then had everything I needed to boot and use the program, the assembled software produced nothing but an error message followed by a return to the previous screen. Sabotage? Of a sort, perhaps, for I'm convinced he purposely withheld a key .DLL file so that he could sit down at my computer and demonstrate how easily the program is loaded by a skilled operator. Grrrrrri-!

In the event, he made amends and, beside eating all of my pizza, left behind a well organized computer and a new piece of software labeled 3.0. I forgave him one more time, sort of like I forgave Microsoft for being a year or more late with Win95, and assured him of my undying devotion (at least until it's time for Express 4.0!). But not for long, because as he flew to Munich for a family reunion and his mother's 70th birthday party (that is not an advanced age, you know), glitches developed and my "beta" test became more of an "omega" environment—the end, as they say. Patches, he assures me, will be on the way upon his return to Benin. Experience, the best teacher, assures me that the product will emerge soon in finished for (but we will NOT call it "3.0 95!").

Dazzling? Dazzling! Express 3.0 opens any digital operator's eyes to the potential of our hobby. And any operator who has a HAL PCI-4000 or HAL P38 (see notes about this brand new and exciting product elsewhere in this issue of the Journal) inserted in the shack's computer can master all of it in no time at all. Like its predecessor this is software as it should be, except the concept grew to include four digital modes, logging and the incredible sketchpad to boot. Enough, for this is not a review of the product, it is a preview. A full-scale review will run soon written by a less biased observer. Hi!

Let's begin at the beginning at look at the introduction screen (Fig. 1). Express sports a new font and now the ADRS logo is prominently displayed in the corner. This screen is seen every time you boot the program. And the bar across the bottom (reading 91%) goes on to the end and when it does you know that the



RX

```
defend thDDGLHKX
well, we almost made it, but it was that last wava that broka over your little boat
that drowned out tha signal. Otherwise, Jonah delivarad on the spot. Plaaaa carry
your HT highar than your haad and wa will be okayl.

SENDING FILE : C:\CLOVER\INTRO.BMP 01-04-95 22:27
Well, back into the water with you!!
Okay, but  is there any other combination where we would be limited because of that
decision? Probably not
That was vary strong QRM hera. Much ovar S9. But you are right. We didn't used to
worry. Hi!
```

TX

```
were both on QRG and heard aach othera aignals with no distortion. it used to pick up
undar these circumstances!

eh, when sending all the scrrenprints of clover, i had a little backthought in my
mind:
what aboput printing some fliara to promota Expraas aales for Dayton ?

agian on pactor, if one day i may come up with  axpress for pk232/900 then of course
binary iletranafers would be naedad for all veraion in Pactor. but wxe are not at
that point yet.
```

Linked to N2HOS - JIM

21.31 - 22.31 - Apr 01, 1995

INTRO BMP 57% 00.02

File RX 0%

	RX	TX
Mod	BPSM	BPSM
S/N	28.5	40
Phase	41	42
ECC	0	20

Transmitted text is entered here

Fig. 2: Clover Screen

software has found the appropriate hardware and the HAL software Express needs to do perform its duties. In version 2.04, this intro was followed by the Clover operating screen. Now a large part of the digital world pops up to greet you (see Fig. 2). Here we find Clover, Pactor, Amtor, RTTY, Logging and Sketchpad ready for action at the click of a mouse. We will come back to this window in a moment but first take a look at the Setup screen. You access this with a mouse click on the button to the right of the screen. Again we are in the RTTY mode and, once again, we see the utter simplicity of the Express concept. Click whatever attribute you wish to change and the job is done and saved when you click OK and return to the operating screen.

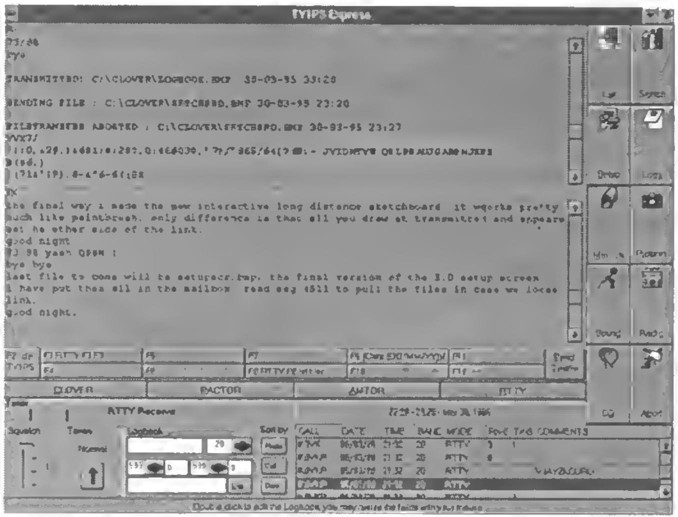
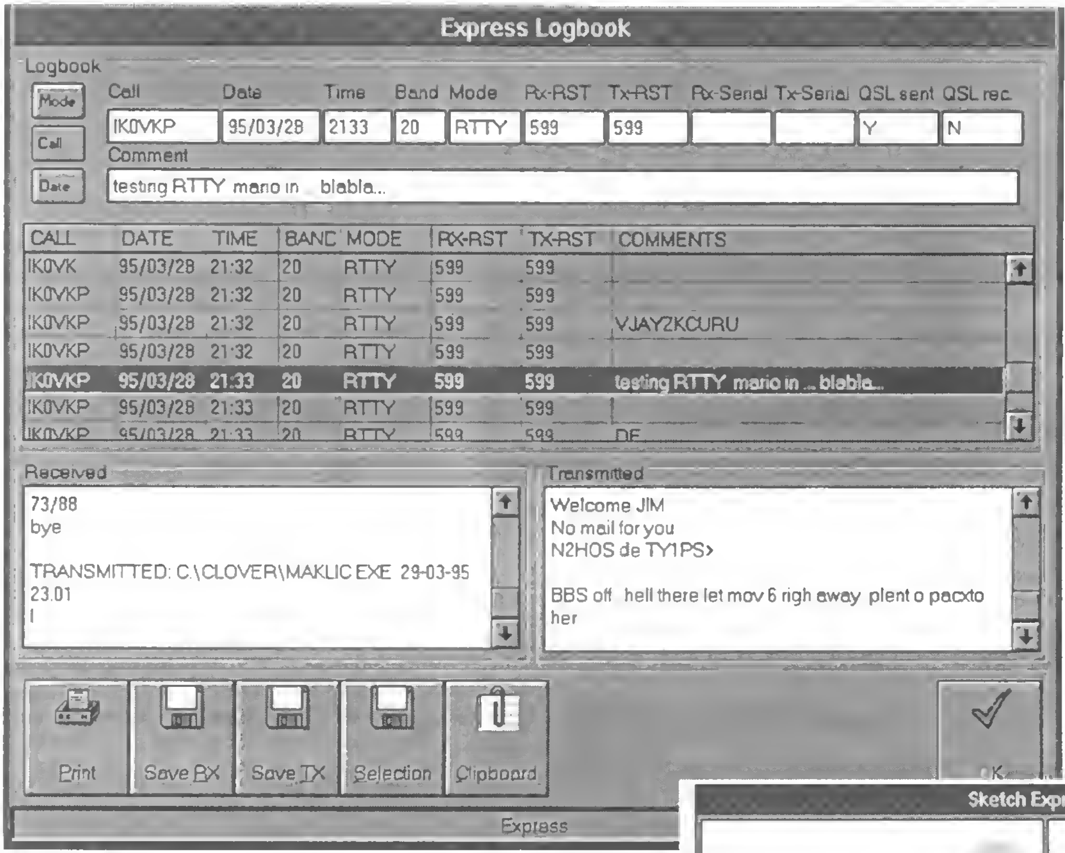


Fig. 3: RTTY Screen

The screen print (Fig. 3, again) shows your rig in RTTY mode with a look identical to the one used for all other modes. Note the log windows at the bottom, the buttons at the right. If we were in Clover and you decided to send a full color picture, click the Pictures button. The keyboard exchange continues as you select the file, compress it and prepare it for transmission on the new screen. The same is true with Sound or Sketch, but only in Clover. The Text File may be used in any mode. Just push the appropriate button. Go ahead and do it without interrupting the link, without interfering with any file transmission underway, with no impact on the incoming traffic from the other party to your QSO.

Click Log (Fig. 4) and bring up the full Logging screen. Here is everything you need but the QSO itself. Work a station and a few mouse clicks record the contact. Logging is almost automatic if you have the RS232 interface connected between your computer and transceiver. Work the station again and history blossoms before your eyes. This is a completely satisfactory logging system for all but the most demanding logging purists. Maybe in version 4.0 we will log pictures of both participants in the QSO as well! Until that happens, this will do very well indeed.



Call	Date	Time	Band	Mode	Rx-RST	Tx-RST	Rx-Serial	Tx-Serial	QSL sent	QSL rec
IK0VKP	95/03/28	2133	20	RTTY	599	599			Y	N

Comment: testing RTTY mario in ... blabla...

CALL	DATE	TIME	BAND	MODE	RX-RST	TX-RST	COMMENTS
IK0VK	95/03/28	21:32	20	RTTY	599	599	
IK0VKP	95/03/28	21:32	20	RTTY	599	599	
IK0VKP	95/03/28	21:32	20	RTTY	599	599	VJAYZKCURU
IK0VKP	95/03/28	21:32	20	RTTY	599	599	
IK0VKP	95/03/28	21:33	20	RTTY	599	599	testing RTTY mario in ... blabla...
IK0VKP	95/03/28	21:33	20	RTTY	599	599	
IK0VKP	95/03/28	21:33	20	RTTY	599	599	DE

Received

```
73/88
bye

TRANSMITTED: C:\CLOVER\MAKLIC EXE 29-03-95
23.01
|
```

Transmitted

```
Welcome JIM
No mail for you
N2HOS de TY1PS>

BBS off  hell there let mov 6 righ away  plent o pacxto
her
```

Fig. 4: Logbook

Express 3.0's triumph is the Sketchpad. In Clover (on either the PCI-4000 or P38), click the button and up comes a basic screen, including the necessary tools to produce anything you wish—from a technical drawing to a full-color sketch of your grand-daughter. That is interesting, new and exciting. But the real payoff is in the transmission speed. Normally, any such drawing converts to a .BMP format and creates a file up to or beyond a megabyte. Or even more. But not here. In this format, only the bytes consumed by the individual lines, rather than the whole screen, count. Thus, a diagonal line across the sketchpad might consume 275 bytes, transmits instantly and shows up on the other end of the QSO in seconds!! A stick figure might run up to 1000 bytes, a technical drawing 10,000. In either case, the drawing appears at the other end of the link almost immediately. This is magic of a high order and creates an entirely new method of expression for the digital modes. I have a hunch this might be the most interesting development this year, or next.

There will be much more written about this software soon. And much more about the P38 as well. The combination is the 'next generation' of digital communication. Don't miss it. Watch the Journal, the ADRS BBS or WorldWideWeb page on Internet for information about the release dates.

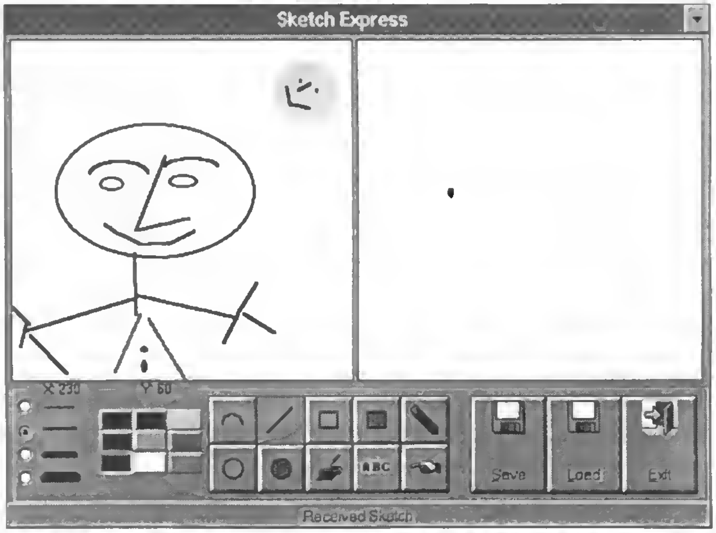
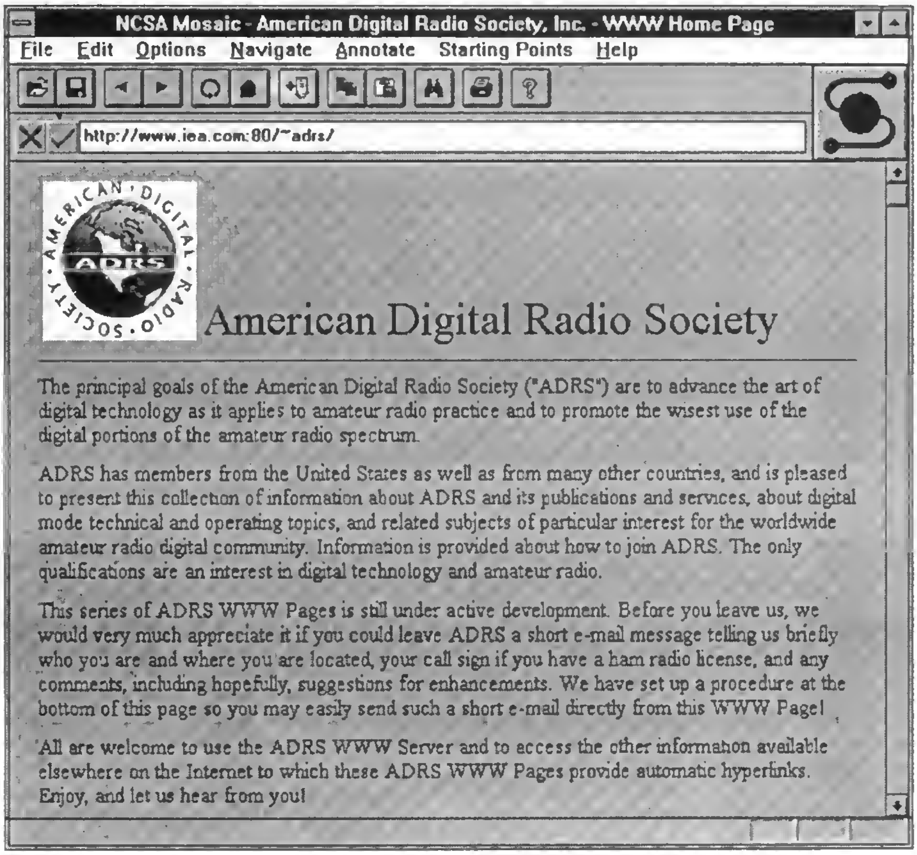


Fig. 5: Sketchpad

ADRS' presence on the Internet

and the implications of the Internet to the future of digital mode ham radio operations

by Paul S. Richter, W4ZB • PO Box 19190 • Washington, DC 20036-9190
CompuServe ID: 70743,3517


NCSA Mosaic - American Digital Radio Society, Inc. - WWW Home Page
File Edit Options Navigate Annotate Starting Points Help
AMERICAN DIGITAL RADIO SOCIETY
ADRS

http://www.iea.com:80/~adrs/

American Digital Radio Society

The principal goals of the American Digital Radio Society ("ADRS") are to advance the art of digital technology as it applies to amateur radio practice and to promote the wisest use of the digital portions of the amateur radio spectrum.

ADRS has members from the United States as well as from many other countries, and is pleased to present this collection of information about ADRS and its publications and services, about digital mode technical and operating topics, and related subjects of particular interest for the worldwide amateur radio digital community. Information is provided about how to join ADRS. The only qualifications are an interest in digital technology and amateur radio.

This series of ADRS WWW Pages is still under active development. Before you leave us, we would very much appreciate it if you could leave ADRS a short e-mail message telling us briefly who you are and where you are located, your call sign if you have a ham radio license, and any comments, including hopefully, suggestions for enhancements. We have set up a procedure at the bottom of this page so you may easily send such a short e-mail directly from this WWW Page!

All are welcome to use the ADRS WWW Server and to access the other information available elsewhere on the Internet to which these ADRS WWW Pages provide automatic hyperlinks. Enjoy, and let us hear from you!

Figure 1

The April, 1995 issue of The Digital Journal contained a brief announcement that the ADRS now had a presence on the Internet with a WWW Server and a FTP site. What does that mean? This article (which will be presented in several installments) describes how that came about, explain the capabilities of ADRS' Internet facilities and how they work, describe what is being planned for the future and describe what this — particularly the Internet — all means to the future of digital mode ham radio operations.

The recent developments represent only first steps, but as we will describe, portend significant developments for digital mode ham radio operations for the future. None of us, like it or not, can stop the march of technological development, and things are now beginning to change quickly in this area of endeavor! It is important that we understand the changes, those already here and those that are coming shortly, whether or not we like any of them at this point!

What Is The Internet?

The Internet comprises a worldwide digital network of interconnected computers. Specific point-to-point digital links in the overall network connect over wire, cable, optical fiber, radio (e.g. microwave) or satellite channels. The manner in which specific point-to-point digital links are provided within the overall network are generally transparent to particular users — assuming specific links are reasonably reliable and have adequate channel capacity to support the usage levels. Individual users now connect to the Internet and then obtain access to all other resources (e.g. computers, including other users) also connected to the Internet.

In the early 1980's the governing body for the then still nascent Internet determined to adopt a set of signaling and interconnection standards and protocols based upon the TCP/IP protocols. As we will explain, the TCP/IP protocols and the application programs, especially communications related programs, which run on top of those protocols continue to evolve at a very rapid rate. In the early 1980s most of the computers on the Internet were located at military, governmental, university and government contractor locations, but that situation has now changed. Today it is possible for individuals (and small organizations) to obtain access to the Internet at very low cost. We will describe how this may be done.

How Does The Internet Relate To Amateur Radio?

In the mid-1980s, Phil Kam, KA9Q, released an early version of a self-developed, multitasking TCP/IP based software system capable of running on DOS based computers (Intel 8088 and up) for interconnecting computers over Ethernet LANs and AX-25 based packet radio. KA9Q's efforts represented a very impressive technical achievement, but one which, due to its sophistication was probably not widely appreciated within the amateur radio community. At that time (and still) many hams were struggling just to get AX-25 packet radio to work at all and did not need the additional levels of complexity of associated with the use of TCP/IP protocols! Today, the KA9Q software (and its many derivatives) provides the DOS world the basis for almost all of the worldwide amateur radio activities by a subgroup of enthusiasts who use the TCP/IP protocols.

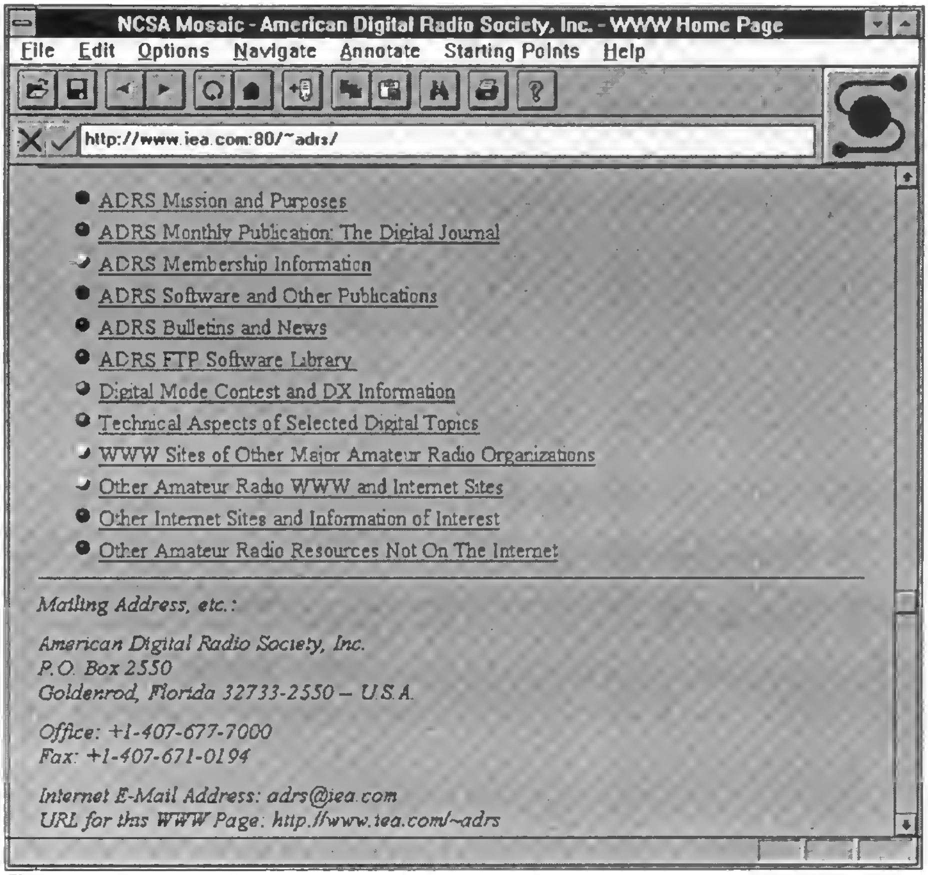
Unfortunately, due to limitations inherent in the AX-25 protocol used on most amateur packet radio (digital) links; a lack of development or standardization of other higher speed digital link signaling standards; and a general lack of high speed digital radio links connecting amateur radio stations, the potential for TCP/IP based systems has not yet been realized in amateur radio operations. Although the problem of implementing high speed digital radio links still does not have easy or cost effective solutions, we confidently predict that the recent opening up of the Internet to individual users will result in much more ham radio interest in TCP/IP based systems, and increased amateur radio <—> Internetconnectivity.

Numerous new and very impressive digital communications related applications which operate on top of TCP/IP protocols are now being developed and deployed. The high level of interest in the Internet as it is becoming widely available at low cost is fostering the development of these TCP/IP related applications. We predict these new applications will be increasingly utilized in digital mode amateur radio operations. The use of the TCP/IP protocol in the ham radio environment in the future will not be limited to VHF/UHF packet radio as we now know it.

How To Get Connected To The Internet

An enormous amount of material has been written in the computer magazine literature over the past 12 months about how to get connected to the Internet. It is almost impossible for active digital mode hams to have ignored it! Nevertheless, we will briefly review the basic considerations for individuals who wish to connect to the Internet from their home QTHs.

What is best in one situation may not be the best in another, and, of course, the costs of


NCSA Mosaic - American Digital Radio Society, Inc. - WWW Home Page
File Edit Options Navigate Annotate Starting Points Help

http://www.iea.com:80/~adrs/

- ADRS Mission and Purposes
- ADRS Monthly Publication: The Digital Journal
- ADRS Membership Information
- ADRS Software and Other Publications
- ADRS Bulletins and News
- ADRS FTP Software Library
- Digital Mode Contest and DX Information
- Technical Aspects of Selected Digital Topics
- WWW Sites of Other Major Amateur Radio Organizations
- Other Amateur Radio WWW and Internet Sites
- Other Internet Sites and Information of Interest
- Other Amateur Radio Resources Not On The Internet

Mailing Address, etc.:

American Digital Radio Society, Inc.
P.O. Box 2550
Goldenrod, Florida 32733-2550 – U.S.A.

Office: +1-407-677-7000
Fax: +1-407-671-0194

Internet E-Mail Address: adrs@iea.com
URL for this WWW Page: http://www.iea.com/~adrs

Figure 2

being connected depend upon the levels of usage. Generally, connection from home to the Internet is made most easily using a modem over a dial-up telephone line. The service providers to be considered include the on-line service providers (e.g. CompuServe, Prodigy, etc.) and various direct Internet service providers of two basic types: shell account providers and SLIP/PPP account providers. Still another possibility is to use an Internet service provider who provides connection to ISDN lines which are more capable (faster) but more expensive than regular dial up telephone lines. They are not available in all localities. It is also possible to use combinations of the above.

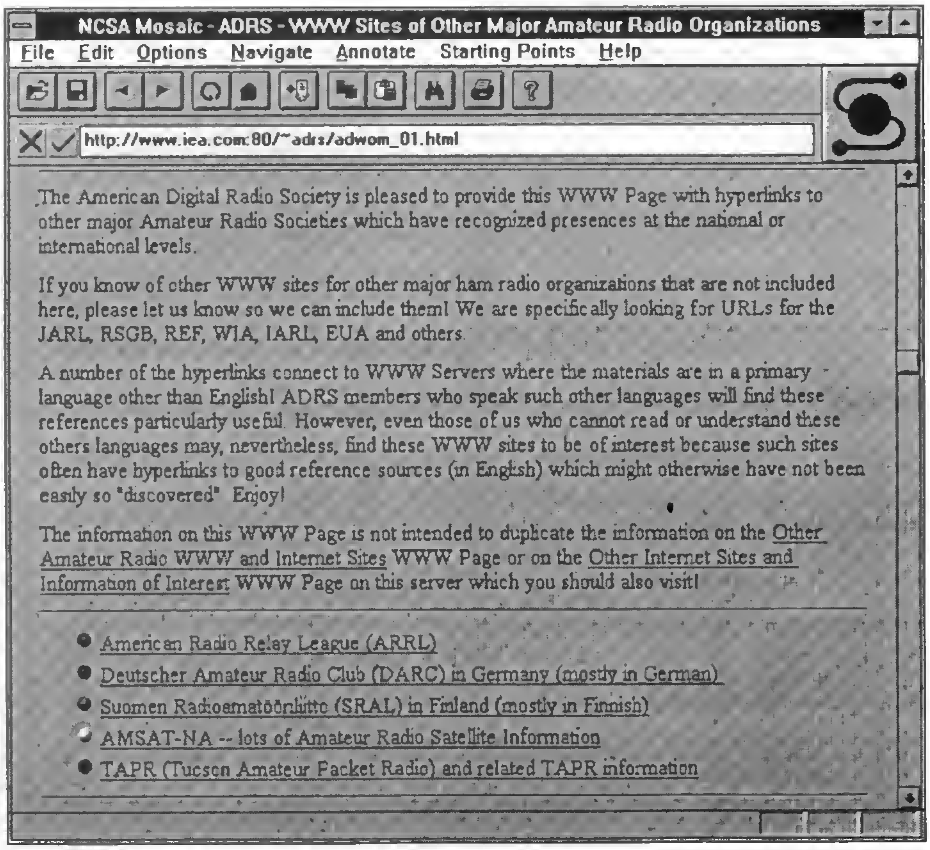
Three of the most basic and important services presently available on the Internet for those with ham radio interests are: e-mail (electronic mail), FTP (file transfer protocol), and WWW (World Wide Web). On-line services such a CompuServe, Prodigy, etc. have offered e-mail connectivity to the Internet e-mail system for many years, and such e-mail systems work very well at very low cost — much cheaper, faster and more reliable than using the regular mails when hard copy is not required! Internet service providers offering shell accounts or SLIP/PPP accounts also provide e-mail services, often with additional features such as direct attachment of binary files to text files.

Internet FTP capability is used to transfer files from a remote computer to a local computer over the Internet. At the overall functional level, use of FTP is not dissimilar to the transfer of files using remote control software. Recently, the on-line service providers (CompuServe, Prodigy, etc.)offered FTP connectivity to the Internet. Internet service providers offering shell accounts or SLIP/PPP accounts also provide FTP capability. The most important type of FTP for ham radio users is known as "Anonymous FTP" which is simply another way of saying an ability to use an FTP Server to which anyone may logon as an "anonymous" user.

WWW capability permits access to Web Servers on the Internet. Web Servers are a new class of information servers for text, binary files, audio, and image information and for hyperlinks to other Internet Web sites. Recently, the on-line service providers (CompuServe, Prodigy, etc.) offered WWW connectivity to the Internet with suitable Web Browsers. Internet service providers offering SLIP/PPP accounts also provide WWW access capability.

The writer currently uses CompuServe and an Internet service provider (with a PPP connection) interchangeably for most text e-mail. I find each approach equally effective (including costwise) for sending and receiving e-mail text worldwide. I use the TAPCIS front end with CompuServe which permits e-mail to be composed and read off-line. This minimizes the on-line connect time to CompuServe (which is relatively expensive), will run on any DOS based computer, and may be easily automated for dialing out and checking for e-mail at several predetermined times times each day.

For FTP and WWW access to the Internet, I use exclusively a PPP (Point-to-Point Protocol) connection provided by a nationwide Internet service provider for which I pay approximately $30 per month for 30 hours of connect time. This gives me a CompuServe (or 28.8kbps) connection with a local dial-in number in approximately 50 major cities in the US At the Miami hamfest in February, 1995, a


NCSA Mosaic - ADRS - WWW Sites of Other Major Amateur Radio Organizations
File Edit Options Navigate Annotate Starting Points Help

http://www.iea.com:80/~adrs/adwom_01.html

The American Digital Radio Society is pleased to provide this WWW Page with hyperlinks to other major Amateur Radio Societies which have recognized presences at the national or international levels.

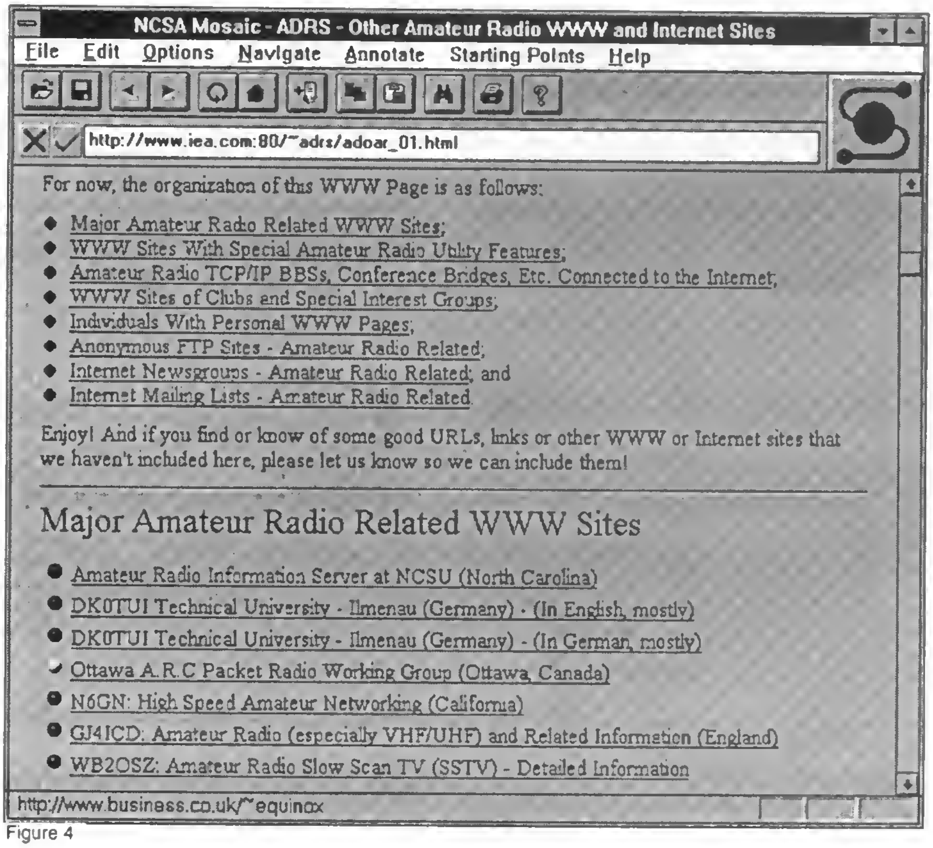
If you know of other WWW sites for other major ham radio organizations that are not included here, please let us know so we can include them! We are specifically looking for URLs for the JARL, RSGB, REF, WIA, IARL, EUA and others.

A number of the hyperlinks connect to WWW Servers where the materials are in a primary language other than English! ADRS members who speak such other languages will find these references particularly useful. However, even those of us who cannot read or understand these others languages may, nevertheless, find these WWW sites to be of interest because such sites often have hyperlinks to good reference sources (in English) which might otherwise have not been easily so "discovered" Enjoy!

The information on this WWW Page is not intended to duplicate the information on the Other Amateur Radio WWW and Internet Sites WWW Page or on the Other Internet Sites and Information of Interest WWW Page on this server which you should also visit!

- American Radio Relay League (ARRL)
- Deutscher Amateur Radio Club (DARC) in Germany (mostly in German)
- Suomen Radioamatööriliitto (SRAL) in Finland (mostly in Finnish)
- AMSAT-NA -- lots of Amateur Radio Satellite Information
- TAPR (Tucson Amateur Packet Radio) and related TAPR information

Figure 3


NCSA Mosaic - ADRS - Other Amateur Radio WWW and Internet Sites
File Edit Options Navigate Annotate Starting Points Help

http://www.iea.com:80/~adrs/adoar_01.html

For now, the organization of this WWW Page is as follows:

- Major Amateur Radio Related WWW Sites;
- WWW Sites With Special Amateur Radio Utility Features;
- Amateur Radio TCP/IP BBSs, Conference Bridges, Etc. Connected to the Internet;
- WWW Sites of Clubs and Special Interest Groups;
- Individuals With Personal WWW Pages;
- Anonymous FTP Sites - Amateur Radio Related;
- Internet Newsgroups - Amateur Radio Related; and
- Internet Mailing Lists - Amateur Radio Related.

Enjoy! And if you find or know of some good URLs, links or other WWW or Internet sites that we haven't included here, please let us know so we can include them!

Major Amateur Radio Related WWW Sites

- Amateur Radio Information Server at NCSU (North Carolina)
- DK0TUI Technical University - Ilmenau (Germany) - (In English, mostly)
- DK0TUI Technical University - Ilmenau (Germany) - (In German, mostly)
- Ottawa A.R.C Packet Radio Working Group (Ottawa, Canada)
- N6GN: High Speed Amateur Networking (California)
- GJ4ICD: Amateur Radio (especially VHF/UHF) and Related Information (England)
- WB2OSZ: Amateur Radio Slow Scan TV (SSTV) - Detailed Information

http://www.business.co.uk/~equinox

Figure 4

Internet service provider with local dial-in numbers throughout the State of Florida was offering a 28.gkbps PPP connections for $20 per month for 50 hours of connect prime time (after midnight is free!) and for $200 per month for full time (24 hours per day, 7 days per week).

Each of these Internet access alternatives require some special application software to run on the user's local computer. CompuServe, Prodigy, etc. supply suitable software for their users. Other Internet providers of SLIP/PPP connections also provide suitable TCP/IP software, usually with a suite of Internet related applications which run on top of TCP/IP. Some very impressive software (e.g. Mosaic Web Browser) is available for free via FTP download over the Internet which can be used with SLIP/PPP connections to the Internet !

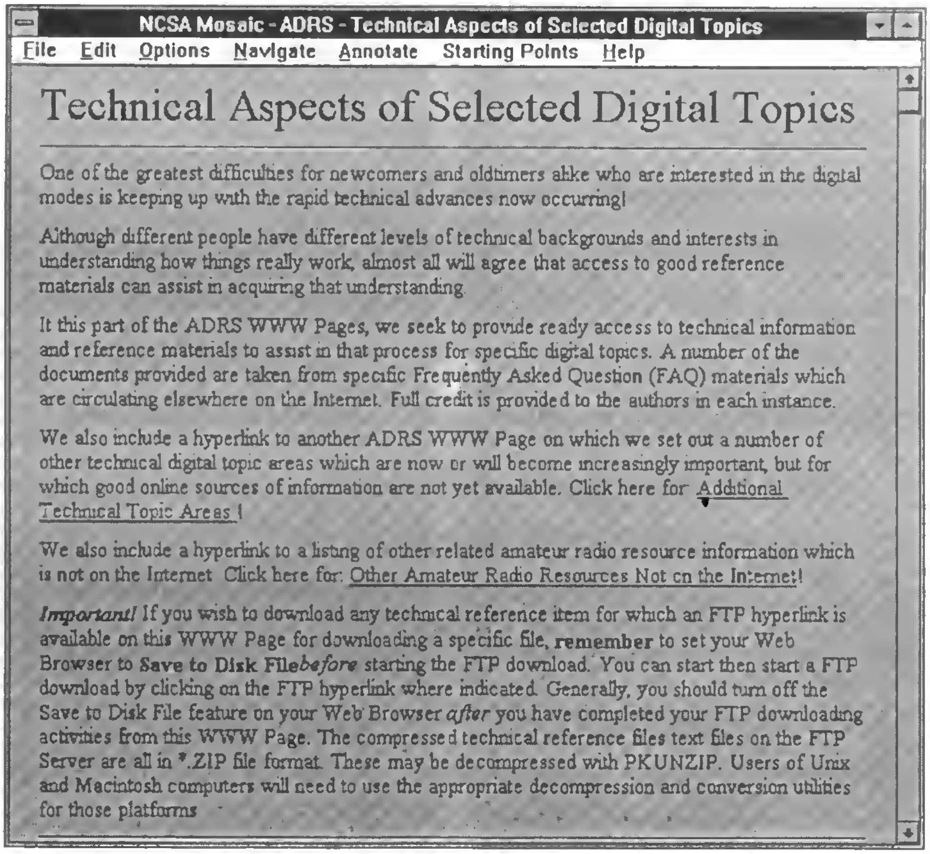
You will need to make inquiry locally to determine what is best for your particular situation, and whether other alternatives may also be available. If you already have a CompuServe account, you may wish to try out Internet FTP and WWW using CompuServe first despite the relatively high connect time charges and low speed (mostly 9600 bps or less) connections. Don't be afraid to give it a try. If you don't make the best choice up front, you can always change.

The ADRS Internet Site and Facilities

The current ADRS Internet site is located on a large Unix computer at a major, well connected commercial Internet site (iea.com) in Spokane, Washington. Discussions about the desirability of such a site began at the ADRS Directors Meeting in October, 1994, but is took the skills of Jay Townsend WS71 to make the necessary arrangements. Once the account was set up, ADRS established an Internet e-mail address which is: adrs@iea.com. E-mail sent to that address over the Internet from anywhere in the world is received by ADRS. Presently the e-mail is being manually sorted and then forwarded to those responsible for the answer. This reading and sorting of e-mail can be done remotely over the Internet itself as can virtually all other functions needed for maintenance of ADRS' Internet facilities at that site!

ADRS also obtained access to file storage space on the Unix computer, and created a series of directories and subdirectories to hold various ADRS files which were previously available only from ADRS' landline BBS operated by Allan Matlick W2TKU in Sarasota, Florida. The files at the ADRS FTP site may now be accessed from anywhere in the world over the Internet via anonymous FTP. The pertinent FTP address for the ADRS' files in Spokane, Washington, is: ftp.iea.com/public/adrs. Once an anonymous FTP connection (logon) is made, the user may change directories and download any files in any directory. Files originally created for computers using the DOS operating system may be stored on the Unix computer and downloaded to a DOS based computer without difficulty! More later on how to use the anonymous FTP facilities.

ADRS also obtained access to the HTTP (HyperText Transfer Protocol) server on the Unix computer. This allows ADRS to set up a series of ADRS WWW Pages which may be accessed from anywhere in the world with a suitable Web Browser. The Internet URL address for ADRS' Web Server is: http://www.iea.com/~adrs. The Web Server technology implemented in the ADRS WWW Server is an impressive, relatively new technology, first developed by the CERN organiza-


NCSA Mosaic - ADRS - Technical Aspects of Selected Digital Topics
File Edit Options Navigate Annotate Starting Points Help

Technical Aspects of Selected Digital Topics

One of the greatest difficulties for newcomers and oldtimers alike who are interested in the digital modes is keeping up with the rapid technical advances now occurring!

Although different people have different levels of technical backgrounds and interests in understanding how things really work, almost all will agree that access to good reference materials can assist in acquiring that understanding.

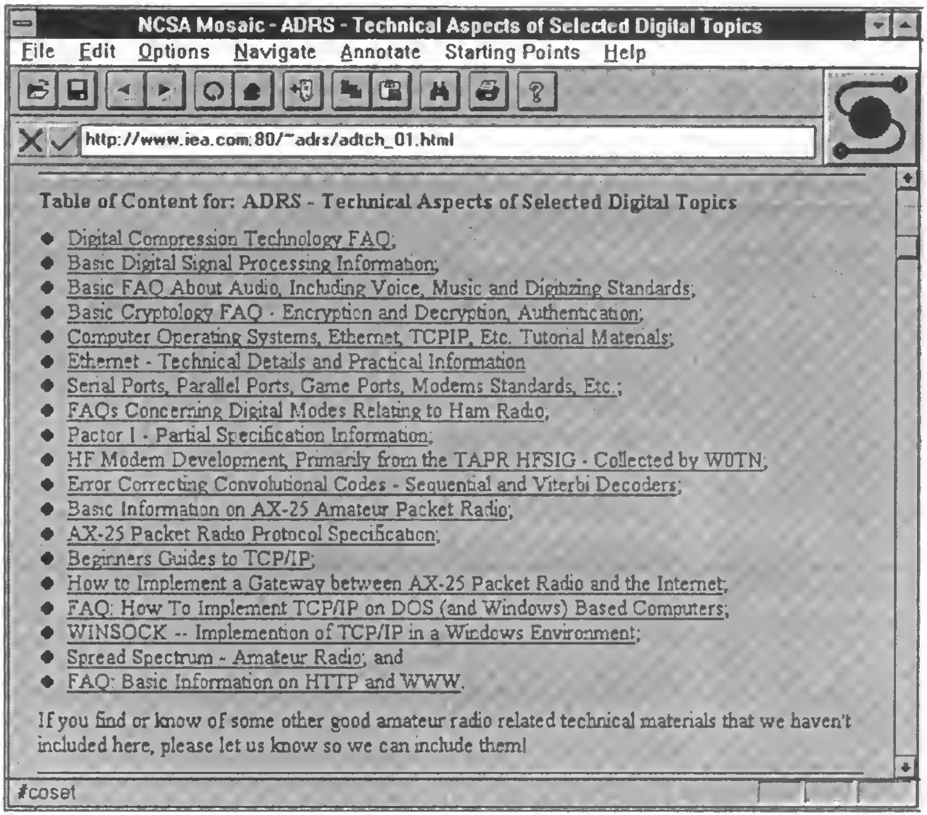
It this part of the ADRS WWW Pages, we seek to provide ready access to technical information and reference materials to assist in that process for specific digital topics. A number of the documents provided are taken from specific Frequently Asked Question (FAQ) materials which are circulating elsewhere on the Internet. Full credit is provided to the authors in each instance.

We also include a hyperlink to another ADRS WWW Page on which we set out a number of other technical digital topic areas which are now or will become increasingly important, but for which good online sources of information are not yet available. Click here for Additional Technical Topic Areas !

We also include a hyperlink to a listing of other related amateur radio resource information which is not on the Internet Click here for: Other Amateur Radio Resources Not on the Internet!

Important! If you wish to download any technical reference item for which an FTP hyperlink is available on this WWW Page for downloading a specific file, **remember** to set your Web Browser to **Save to Disk File***before* starting the FTP download. You can start then start a FTP download by clicking on the FTP hyperlink where indicated. Generally, you should turn off the Save to Disk File feature on your Web Browser *after* you have completed your FTP downloading activities from this WWW Page. The compressed technical reference files text files on the FTP Server are all in *.ZIP file format. These may be decompressed with PKUNZIP. Users of Unix and Macintosh computers will need to use the appropriate decompression and conversion utilities for those platforms

Figure 5


NCSA Mosaic - ADRS - Technical Aspects of Selected Digital Topics
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http://www.iea.com:80/~adrs/adtch_01.html
#coset

Table of Content for: ADRS - Technical Aspects of Selected Digital Topics

- Digital Compression Technology FAQ;
- Basic Digital Signal Processing Information;
- Basic FAQ About Audio, Including Voice, Music and Digitizing Standards;
- Basic Cryptology FAQ - Encryption and Decryption, Authentication;
- Computer Operating Systems, Ethernet, TCPIP, Etc. Tutorial Materials;
- Ethernet - Technical Details and Practical Information
- Serial Ports, Parallel Ports, Game Ports, Modems Standards, Etc.;
- FAQs Concerning Digital Modes Relating to Ham Radio;
- Pactor I - Partial Specification Information;
- HF Modem Development, Primarily from the TAPR HFSIG - Collected by W0TN;
- Error Correcting Convolutional Codes - Sequential and Viterbi Decoders;
- Basic Information on AX-25 Amateur Packet Radio;
- AX-25 Packet Radio Protocol Specification;
- Beginners Guides to TCP/IP;
- How to Implement a Gateway between AX-25 Packet Radio and the Internet;
- FAQ: How To Implement TCP/IP on DOS (and Windows) Based Computers;
- WINSOCK -- Implemention of TCP/IP in a Windows Environment;
- Spread Spectrum - Amateur Radio; and
- FAQ: Basic Information on HTTP and WWW.

If you find or know of some other good amateur radio related technical materials that we haven't included here, please let us know so we can include them!

Figure 6

tion in Switzerland, and very recently turned over to a working group at the Massachusetts Institute of Technology (MIT) for enhancement and coordination of further developments.

Many describe it as a "killer" application for the Internet which will, we predict, find its way in several future variations into ham radio use "over the air" as well as over the Internet. The remainder of this installment of this article will describe the basics of ADRS' WWW Pages, how to access and use them, and describe the types of information available on that Web Server.

The ADRS WWW Server

Access to the ADRS' WWW Server requires a suitable connection to the Internet and second, suitable Web Browser software. The subject of connection to the Internet has already been addressed. The type of Web Browser to use is somewhat a matter of choice: current versions run under Windows (or in another graphical user interface environment), but older Web Browsers (e.g. Lynx) exist which run only in text mode (without supporting graphics images). Go for the Windows version if you can. The graphics are fascinating.

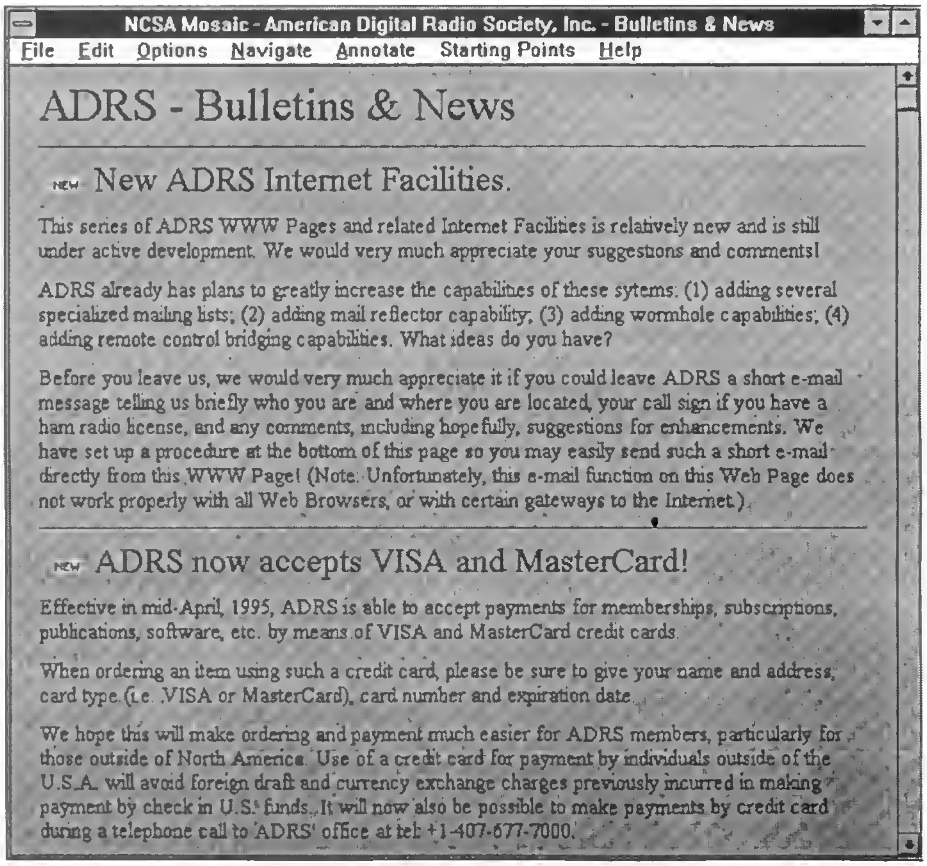
With a dial-up SLIP/PPP connection, you may use any of the standard Web Browsers (Mosaic, Netscape, Spry Mosaic, etc.) which run under the TCP/IP. The on-line service providers, CompuServe, Prodigy, etc., provide their own Web Browser software which run under their proprietary front ends. The screen shots in this article were made using the Mosaic Web Browser which free downloadable software available via FTP on the Internet. Details of how to get that software are provided on one of the ADRS' WWW Pages.

Once your Internet connection is up and running and your Web Browser application is started, enter the URL (Uniform Resource Locator) address for the ADRS WWW site. Type http://www.iea.com/~adrs and the Web Browser will connect. If everything works correctly, your Web Browser 1) interprets the URL as seeking a connection to the addressed Web Server, 2) contacts a local Domain Name Server (DNS), 3) determines the IP address (Internet Protocol address) for the addressed Web Server, 4) generates a HTTP TCP/IP connection request to the addressee with a request for the Web Server to send the addressed Web Page together with all objects on that Page. Simple!

In the case of the ADRS' Web Server, a URL call defaults to what is known as the ADRS home (or start-up) page. The home page (see, Figs. 1 and 2) contains text as well as graphic elements (e.g. the ADRS logo, color dots, etc.) and may be viewed on the Web Browser once received. By default under HTTP, the text material is transferred first from Server to User (Client), followed by the each of the graphic elements (objects) which the Browser then displays in their proper place. The graphic objects used on the ADRS Web Pages are * .GIF files, but other graphic file formats may also be used. Once the full home page (including all objects thereon) has been transferred, the HTTP connection is then disconnected, with the Web Server maintaining no memory of the prior connection. This automatic disconnection under HTTP after each connection frees up the Web Server's resources to service other users.

The underlined items shown on Fig. 2 are hyperlinked menu items to additional pages of information on the ADRS page. By "clicking" with the mouse pointer on a menu item, the Web Browser automatically generates a new HTTP connection to the server with a request

(cont'd on page 25)


NCSA Mosaic - American Digital Radio Society, Inc. - Bulletins & News
File Edit Options Navigate Annotate Starting Points Help
NEW
NEW

ADRS - Bulletins & News

New ADRS Internet Facilities.

This series of ADRS WWW Pages and related Internet Facilities is relatively new and is still under active development. We would very much appreciate your suggestions and comments!

ADRS already has plans to greatly increase the capabilities of these sytems: (1) adding several specialized mailing lists; (2) adding mail reflector capability; (3) adding wormhole capabilities; (4) adding remote control bridging capabilities. What ideas do you have?

Before you leave us, we would very much appreciate it if you could leave ADRS a short e-mail message telling us briefly who you are and where you are located, your call sign if you have a ham radio license, and any comments, including hopefully, suggestions for enhancements. We have set up a procedure at the bottom of this page so you may easily send such a short e-mail directly from this WWW Page! (Note: Unfortunately, this e-mail function on this Web Page does not work properly with all Web Browsers, or with certain gateways to the Internet.)

ADRS now accepts VISA and MasterCard!

Effective in mid-April, 1995, ADRS is able to accept payments for memberships, subscriptions, publications, software, etc. by means of VISA and MasterCard credit cards.

When ordering an item using such a credit card, please be sure to give your name and address, card type (i.e. VISA or MasterCard), card number and expiration date.

We hope this will make ordering and payment much easier for ADRS members, particularly for those outside of North America. Use of a credit card for payment by individuals outside of the U.S.A. will avoid foreign draft and currency exchange charges previously incurred in making payment by check in U.S. funds. It will now also be possible to make payments by credit card during a telephone call to ADRS' office at tel: +1-407-677-7000.

Figure 7

DIGITAL DIGEST

News, Views, Bits & Bytes

Edited by Tom Arvo, WA8DXD • 4340 Watermill Ave • Orlando, FL 32817
CompuServe ID: 73330,1335 • Internet: arvo@magicnet.net

Dayton '95 is now history, but the impressions on the multitudes who made the pilgrimage will not soon be forgotten. Perhaps one of the the biggest hits was the weather. It was perfect (and rare) for the last weekend in April. In fact, upon landing at the airport I had a hard time convincing myself that I had actually landed in Dayton.

With this installment of the Digital Digest column we thought it might be of interest to our readers to get a summary of the hits, misses, the old and the new that permeated the Hara Arena at this ham-extravaganza. With this in mind, we asked several of our Journal staffers if they would jot down their thoughts and observations and share them with the membership. What follows is a summary of views from Dale W6IWO, Wayne NZ4W, Al W2TKU, and Ron AB5KD. So sit back, relax, and take a few moments to relive the fun and excitement that you had at this year's event. And if you weren't there, perhaps you'll receive inspiration to join the throngs in '96! -- ed.

DAYTON . . . de DALE W6IWO

WHO COULD ASK FOR ANYTHING MORE?

Boy, did the ADRS roll out the red carpet at Dayton this year. If you have never been to Dayton. you should plan now to go next year. By far, this was the most exciting Hamvention I have ever attended. But, then nothing compares to Dayton. Over 37,000 hams attacked Dayton this year with a vengeance for getting even with last year, which was practically rained out. With fine weather all three days, it was a buyer's paradise and the ADRS had some of the finest programs set up for the gang.

It all started with the informal gathering in the lounge. There, you could find the tales running wildly. The friendship and camaraderie were a site to see. Here was a chance to meet new faces or to renew old acquaintances. At one time, I personally counted over thirty people in our group with many coming and going. Boy, I hated to stop and go to dinner.

Just for starters, how about this line up of speakers. From PacComm came Gwyn Reedy, W1BEL. showing us Pactor II, followed by a discussion of APRS. Then, Al Matlick. W2TKU, and Jay Townsend, WS7I, covered the actions of the BOD. Next came Paul Richter, W4ZB, who gave an interesting presentation on the WWW (World Wide Web) on Internet. Did you know we (ADRS) are on the Internet and the WWW. This was very interesting and should bring us many new members from around the world. Then there was Jim Jennings, KE5HE, with his latest version of RagChew. Following Jim, came Peter Schulze, TY1PS, giving his newest version of Express III. All this was hosted by our own Crawford McKeand, WA3ZKZ. These sessions took place on Friday moming at the hotel before the Hamvention even opened its doors. Each session was well attended and our speakers were outstanding. This show will be hard to follow, but next year, who can tell, maybe we'll have something even more special!

On to the Hamvention and the action around the ADRS booth. The officers and Journal staff manned the booth. so it made it easy to meet your favorite person there. Many ADRS members stopped by to say hello and make a comment or two about the organization. Most were very pleased with everything, from our position on FCC matters, to the Digital Journal. Mostly they felt the Digital Journal had taken a turn for the better with articles that appeal to more members. The ADRS is our organization, one that is based on the need for representation. Our magazine is the lifeline to our readers. But, we must all do our part to make this organization a success in every way. If we do not like something, then we must do what we can to bring our thoughts to the forefront. Then it is up to the BOD to take the appropriate action. The BOD must act in a manner that is appropriate, with their position on the thoughts of the members, in mind at all times. This is a very hard job to do, especially in a new organization such as ours. However, the comments I heard seem to indicate that the ADRS is doing a fine job.

Many who stopped by the booth had come to renew their membership in the organization, and many new members also joined our ranks. One member even stopped by to become a life member shelling out $350.00. I think he knows something the rest of us don't or maybe he feels so strongly about the ADRS that he put up his money to prove this point. Friday afternoon was a busy one for many of us but there was more to come.

Friday night saw many DXers and Contesters attending a dinner at the hotel. Awards were given for the WPX contest and Ron Stailey, AB5KD did an extraordinary job. This was the first time for this event and the turnout will make it possible for this same event next year. Ron sold nearly fifty dinners for this event, which shows people do want a special night for the recognition of Contesters and DXers. I'm sure it will be an even bigger event next year. Friday night also saw many of the same digital types at the ADRS hospitality suite where the mood was festive and enjoyable. On into the wee hours of the morning they talked and plotted future DXpeditions and contest maneuvers until someone said, "let's close the door and go to bed."

More good weather on Saturday brought the masses back again to Hara Arena. This good weather made for easy mobility inside the arena which during rainy times is really a mess. Booths were not as crowded, making it a pleasure to shop and browse. Even the ADRS booth enjoyed this fact and made it easier to chat with new members.

The Digital Digest forum enjoyed a good crowd and our panel of experts were on hand to discuss the pros and cons of "Plug and Play." This was a discussion, only with no direct results expected. However, it was suggested that material relating to Plug and Play be funneled through either the ADRS or the ARRL Digital Committee. This area of discussion needs a lot of work and this forum was one step toward meeting this criteria.

Saturday evening is always a big affair, beginning with the Digital Dinner at the hotel. It was my pleasure again this year to be M.C. in the absence of Jim Mortensen, N2HOS. We had over 100 in attendance this year and the food was nothing less than superb. Bill Henry, K9GWT presented an award to Peter Schulze, TYIPS, for his contribution of Express to the ADRS, and yours truly presented an award to honor Vic Poor, W5SSM, for his contribution of Aplink which was so extensively used during the Kuwait conflict. Following these presentations, Jules Freundlich, W2JGR, introduced our speaker Dr. Vince Thompson, K5VT. Vince had an array of slides from various DXpeditions where he has been active. This was very entertaining and made the evening a real success. The door prize was won by Lloyd Smith. N1OAZ. Afterwards. many retired again to the hospitality suite.

Sunday morning saw many head for home while a few of us went back to the arena for more shopping and standing by at the booth. All in all, it was a very good Hamvention. I would like to thank all those who helped man the booth. A special thanks goes to Betsy Townsend, WV7Y, the ADRS official photographer, who also helped me organize the Digital Dinner, and to the hotel staff who prepared all that wonderful food and made our stay so pleasant. Jane Kelly, Diana Robbards and their staff at the hotel did an outstanding job. Not withstanding, let me not forget the bus service that was again restored this year. This removed a big burden from all of us who attended. Thanks to the Greater Dayton Area Convention Bureau for making this possible.

Well, that's all there is to it. It was great fun and I hope this report will encourage you to think about coming to Dayton next year. Remember, next year the Hamvention will be held on May 17-19, so mark your calendar now for this very special event!

73 de Dale, W6tWO

DAYTON . . . de WAYNE NZ4W

Dayton 1995 was another event that captured the hearts and minds of digital operators fortunate enough to attend this incredible hamfest. Blessed with near-perfect weather the entire weekend, there was ample time to wander outdoors and sample the broad array of items being hawked by thousands of vendors, leaving the indoors to the major manufacturers and those brave enough to traverse the packed main floor of the Hara Arena.

Steve Waterman, K4CJX, and I arrived at the Radison North Thursday afternoon and immediately found the bar where Dale Sinner, W6IWO was holding court with Bill Henry, K9GWT, of HAL Communications and other ADRS members, some of whom were preparing for a board of directors meeting to be held later that evening.

The official and unofficial events begin Friday with an ADRS-sponsored forum devoted to the new ADRS World-Wide Web (WWW) page. Using slides, Paul Richter, W4ZB, demonstrated the numerous features and information available to anyone with a WWW connection (http://www.iea.com/~adrs). Having visited the site from home, I decided to catch a bus to the Arena.

In past years, bus service from Dayton's hotels to Hara was free. Busses ran approximately every 20 minutes from various lodgings to Hara, and rarely were there any problem. In 1994 the the Dayton ARC dropped the service and it was picked up by the hotels, who charged a two-dollar fee for round-trip service. Last year the service was sporadic and slow. This year I am pleased to report there was absolutely no difficulty catching a bus from either the Radison or Hara, so the bugs have been worked out of the system.

After browsing the displays on the main floor, I decided to attend one of the forums, With options ranging from AMSAT, Antennas, Logging Programs, County Hunters, and Packet and Digital Radio sessions, I chose the latter. Moderated by Dave Wolf, WO5H, of the Digital Journal editorial staff, the speakers included Greg Jones, WD5IVD on digital communications, John Ackerman, AG9V giving a TAPR update, Mel Whitten, K0PFX on improving Layer 1 performance, and a host of other speakers discussing such issues as TAPR/AMSAT DPS-93 projects, TCP/IP, BBS, and HF digital trends, and an APRS Update by Bob Baringa, WB4APR.

The afternoon left plenty of time for checking out the flea market. It was a magnificent day to forage outdoors among the thousands of tables and booths where everything imaginable could be found.

Returning to the arena I visited the HAL booth where I discovered their new P38 DSP HF Modem which includes CLOVER, PACTOR, AMTOR, Baudot, and ASCII modes. Some of us recall when Ray Petit, W7GHM, worked with HAL to bring CLOVER into being, primarily as an option to the unworkable HF Packet or AX.25 protocols. CLOVER indeed worked, but its original thousand-dollar price tag (later dropped to $795.00) put it out of reach of many users. The original Motorola DSP and MC68000 chips used in the HAL PCI-4000 remained costly, so HAL decided to use the less expensive Texas Instruments TMS320C25 DSP chip. They rewrote the software, dropped some non-essential features, and produced the P38, now priced at $395.00. The P38 will use such third-party software (available on the ADRS BBS or via ftp.iea.com/public/adrs) site) as WinLink, EXPRESS, RagChew, and the W9CD and WF1B programs. It is similar to the PC-4000 in many respects in that it is a plug-in card for PCs and uses the same uploadable software. And HAL claims the P38 performs within 1.0 dB of the PC-4000.

After spending several hours wandering around the Arena I returned to the Radison bar where ADRS types were solving all the problems of the digital world. A group of us drove several miles to the Barnsider restaurant for dinner and after a meal and much discussion, returned to the Radison where braver souls met in the ADRS hospitality suite for drinks and more schmoozing. More timid souls sought refuge in a warm bed with a good book.

Saturday morning and a quick bus trip to Hara where various forums, beginning at 9 am, were available. The DX session featured Garth Hamilton, VE3HO, on the DX Advisory Council, Bill Kennamer, K5FUV on the DXCC program, Tim Totten, KJ4VH and Chen, BZ1HAM on Scarborough Reef (BS7H), Al Hernandez, WA3YVB and Jan Heise, WA4VQD on South Georgia Island (VP8SPG), and Eric Scace, K3NA on Syria (YK0A). See the May issue of the Digital Journal featuring articles on the VP8SGP and YK0A operations.

Additional morning options included sessions devoted to weather satellites, Military Affiliate Radio Systems (MARS), and VHF/UHF microwave issues. There was also a PACTOR session moderated by Tom Rink, DL2FAK that featured Phil Sussman, KB8LUJ, editor of the PACTOR Newsletter, Hans-Peter Helfert, DL6MAA on PACTOR-II protocols, and Ron Proctor, KI7ZI of AEA discussing their new DSP-2232 TNC.

I wandered over to the ADRS booth, staffed by Paul Richter, W4ZB, Jules Freundlich, W2JGR, and Al Matlick, W2TKU. There was plenty of information available for the curious and I had an opportunity to discuss the ADRS WWW page with Paul. If you have not visited this site, you will find that not only is ADRS data plentiful, but there are links to numerous other amateur radio sites, all accessible at the click of a mouse button.

I made a quick trip back to the forum rooms for Dale Sinner's Digital Digest session on Plug and Play, a discussion on the need for standardization of connections between radios, modems, and computers. Panel members included Paul Newland, AD7I, of the ARRL Digital Advisory Committee, our own Jim Jennings, KE5HE, Phil Anderson, W0XI of Kantronics, Rod Proctor, KI7ZI of AEA, and Chip Margelli, K7JA, of Yaesu, USA. As I listened to the panelists discuss the difficulty getting manufacturers to adopt standards, I pondered the irony of the dilemma I had faced the previous day.

Normally, I never go anywhere without a portable FM radio. While wandering around I use the opportunity to listen to music and enjoy myself. But this year I left my radio in Nashville. No problem. After all, this is Dayton. For a measly seven dollars I found a used tape cassette/radio combo at the flea market, but the headphones crapped out. For ten dollars I found a decent pair of cans but the male adapter was larger than the input to the radio. No problem. Surely there would be a stereo jack adapter available at Dayton. The search was on, and after inquiring at dozens of booths and stalls, I found several mono but no stereo adapters. Figuring half a pie was better than no pie, I opted for the mono plug that limited my music listening to one ear. It did not escape me that if makers of transistor radios and headphone manufacturers have difficulty adopting one standard, it is not surprising that the digital communications world is rife with incompatibility, and Dale's forum was an stalwart attempt to address the issue.

There were afternoon forums available on SSTV, the YLRL, AM, AMSAT, Contesting, ATV, Direction finding, QRP, and electrical safety demonstration, and sessions on phase lock loop design and battery charging technology.

I spent the afternoon enjoying the displays and sampling the wares from the flea market, all the while listening to music through one ear. The return bus was on time and I arrived back at the Radison in time to shower and get ready for the ADRS dinner that evening, which will no doubt be covered in this issue by other columnists.

If you have not experienced the chaos and attendant excitement of Dayton, you should consider going. In spite of the crowds and madness, it remains the most interesting amateur radio/digital convention on the planet. Hope to see you there next year.

73 de Wayne Renardson, NZ4W

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DAYTON . . . de AL W2TKU

Almost immediately after returning from Dayton my wife, Charlotte, and I left on a ten day trip to the Great Smoky Mountain National Park. As I am writing this I am in Townsend, TN just having returned from their annual festival of non-stop country music, BBQ ribs, chicken, turkey and other goodies and a beautiful day of sunshine. This is where we had planned to go for some time and met some friends here who are also avid amateur photographers. Unfortunately I took this laptop with me, so Jim N2HOS found me and asked me to write about Dayton. I say "unfortunately" because my wife does not like to be held up from our vacation activities while I am pounding away at this machine picking up and sending E-mail . . . and writing this article.

I have no notes with me so I will touch on the few highlights I can remember. It did not rain constantly and the area was not a sea of mud, quite a plus for those who remember the last few years. I spent most of my time at the ADRS/Digital Journal booth answering questions, signing up new members and meeting many of you who have only been call letters to me. We also met some brand new members of the digital community and we hope to hear them on the air soon.

One of the things that prompted some of them was a HAL announcement of the P-38. I asked HAL's Bill Henry where that came from and he reminded me of the P-38, twin fuselage, lightning fast pursuit aircraft of WWII. HAL had them there for sale (not the airplane) and buyers wandered over to see us for software and subscription sign up right after they bought one. This is a lower priced PCI-4000/M, about half-priced, and designed to meet objections to the cost of the higher priced PCI-4000/M. I have not yet tried it but reading about it suggests that most of you will not notice the difference. It will permit you to have Clover, Pactor, Amtor and RTTY all on one computer card. You have to give this some serious thought. I assume that there will soon be a complete review of the P-38 in the Journal and I will leave more discussion until that time.

By the way Rag Chew by Jim KE5HE is up to Version 2.04 and available at the Journal's Software Store. This is a quickest way to get to use all those modes in the P-38. HAL also supplies software for your computer control of this new controller.

While we are on software I should point out that the new Express, Version 3.0, did not make it to release at Dayton which was the plan of its author Peter, TY1PS. Some last minute bugs prevented its release. Now we have to wait for Peter to get back to Benin by way of a stop in Germany before he can fix up these last few items and place it in the Software Store for sale. He did demonstrate it at Dayton and now everyone is eagerly awaiting its release. Since this also will be reviewed here in the Journal let me only say that you doodlers will finally be able to send copies of your masterpieces out on the air. His drawing program addition is certainly a step into the future of Digital Radio.

I had little time to look around the Hamvention since the crowd at the booth kept us constantly busy. I did get to the forums we sponsored and really enjoyed them. Topics were timely. We had a morning of talks by PacComm on its Pactor equipment including a quick look at the box for the PacComm II Pactor controller. We did not see the new design but Ready assured us that it is on its way. Peter TY1PS demonstrated Express 3.0 at the current state of development (that looked to most of us to be just about ready to be released). Jim KE5HE ran through RagChew 2.04 and fielded questions from the floor on its operation. HAL has tested RagChew with the P-38 and says it works. Crawford gave us a rundown on the workings of SNAP. An updated version will be available at the Software Store soon.

At the main forum hall at the Hamvention ADRS sponsored a forum on Plug and Play. Most of the discussion was on standardization and compatibility. With almost all of the major controller and transceiver manufacturers present I am sure that they got the word which was, "Why is there no uniformity among TNC and transceiver manufacturers when it comes to those connecting plugs? Who hasn't puzzled with this problem? Even when you figure out how to solder the lines to the connector questions remain. Audio Out, for example. Is that out of the receiver or out of the computer? Or, does anybody know? Can you feed audio into the mike connector, speaker connector or where does it go? What about FSK? Is it really FSK or is it AFSK and where is the "gozinta" and what goes into it? I think the point was well made and we heard some of the reasons the manufacturers have the problem. All I can report is that it all was noted and may even get fixed before too long.

The RTTY DX dinner was first class. Don't miss this one next year. Our Texan friend, Ron AB5KD, did a bang up job. We will have to bring him back for an encore in 1996. The Digital Dinner was great, as always and the . Well deserved awards were made to Vic W5SMM and Peter TY1PS for their technical contributions to the hobby.

Until next year. 73 Al, W2TKU

########

DAYTON . . . de RON AB5KD

Hello Contesters/DXers, at the end of the May issue of the Contest Chair column, I said there wouldn't be a column this month, just the results of the ADRS's WW RTTY WPX Contest. We have all that just as I promised and at the same time, I thought some of you that didn't get to go to Dayton would like to read about some of the things that pertained to contesting.

This year we had our first Contesters/DXers dinner on Friday night. We had hoped to have at least 37 people for our first dinner. Why did we pick such a strange number like 37 for our first dinner? Several months ago I heard two old timers talking on 20m, about Dayton in the early days. One of them said, the first Contesters/DXers dinner at Dayton was held together, the same as ours. At that historical event there were 37 people attending. Thats the reason we wanted at least 37 people. As it turned out, we had some 68 people to take part in this PRESENT annual event. When we first decided to have a Contesters/DXers dinner we were scheduled to have it in the Radisson's Crystal Room. We soon out grew these arrangements. Thanks to the very capable Catering Coordinators, Diana Robards and Eddie Wilson, we soon had a larger room for our first dinner. Maybe we can build our dinner into as large of an event as the SSB/CW group has at the Stouffer's each year. Wouldn't that be something. I have assigned the duties of advising the Radisson when we again need larger dinning facilities to myself. hi hi :-) (I truly hope thats next year..)

I must say the Chicken Cordoon Blue dinner was delicious, my compliments to the chief. It couldn't have been better..

The after dinner program: Ron AB5KD- Talked about their efforts at K1NG to win CQWW RTTY DX Contest Multi/Multi category, (more about this next month) Ron KP2N- talked about Island contesting and what a hurricane can do your home and station. Ron lost both his home and station in a hurricane. Last but not least, my windy friend Eddie G0AZT/WQ6 talked about the big G0AZT/W6OTC, Contesting efforts and DX/Pedition to Guyana (8R) during and after the JARTS'94 contest last year.

After the speakers presentation, plaques recipients were awarded plaques for their efforts during the new ADRS WW RTTY WPX Contest last February. I might add, that all plaques were mailed to recipients not able to attend the dinner, in the first part of May. Some of you should have them by now.

The hospitality room at the Radisson was at it's best as usual. Dale Sinner W6IWO and Hal Communications (Bill Henry K9GWT), took care of us real well. Plenty of spirits and snacks to keep everyone extremely happy..

I heard several guys say they didn't find any real deals in the flea market at Dayton this year!! Well the deals were there and thats a fact. Jim WB7AVD made the deal of the Century this year.. While he was strolling through the flea market he came across a used Hal ST-8000 HF modem. Not only did he find it, he walked away with it for a mere $300 bucks. Yes that is the same modem that is advertised by Hal Communications on the back cover of the Digital Journal in your April and May issue... There are people that will do CRAZY things for something they want real bad. "I am one of these people." "I would stand BUCK NAKED in front of a very large crowd and state the Gettysburg Address, Word for Word, for just one (1) Hal ST-8000 HF Modem." (You may quote me on what I have just said.....) :-)

Congrads Jim on getting the deal of the Century... I just wish we had a picture of the guy Jim bought the modem from, it's not every day you get to see one of these guys, usually they are kept locked up.. hi hi :-)

BTW, if any of the WPX contest M/S or M/M ops want a copy of the plaque you helped win, we can get them for you. They cost $50.00 each,

(cont'd on page 26)

(cont'd from page 21)

for transfer of the selected menu text page together with all objects on that page. For example, if we "click" on "WWW Sites of Other Major Amateur Radio Organizations" as shown in Fig. 2, the Web Server will receive appropriate commands to transfer a particular Web Page to the Web Browser, a portion of which looks like Fig. 3. Fig. 3, in turn contains additional underlined menu items. Some of these underlined menu items refer to (i.e. are hyperlinks to) additional pages on the ADRS Web Server, but significantly, others are hyperlinks to other WWW sites. For example, "clicking" on the "American Radio Relay League" item, will generate a HTTP connection and request to the ARRL's Web Server site which is presently in Michigan! Similarly, clicking on the DARC menu item will generate a HTTP connection and request to the DARC's Web Server site in Germany.

As a further example, clicking on "Other Amateur Radio Organizations on the Internet" generates an HTTP request for another ADRS WWW Page, a portion of which is shown in Fig. 4. This particular page is quite lengthy, and starts with a table of contents. The table is largely self-explanatory. Some of the references appearing on the page include hyperlinks over the Internet (by means of the Telnet application) to various TCP/IP amateur radio sites. Some of these, in turn, include connections out "over the air" for live QSOs over VHF/UHF packet radio! Some of the other Internet facilities include: Callbook and Callsign servers, DX PacketCluster Servers, FTP sites for ham radio files, etc.

The ADRS Web Server also includes extensive technical information about selected digital topics of current interest. See, Figs. 5 and 6. Pertinent flies stored on the ADRS' FTP server may be directly accessed and downloaded using the Web Browser from these technical topic screens. The current versions of Web Browsers support direct FTP downloading. Certain specific technical topic items also include hyperlinks to other WWW sites on the Internet which contain much more complete information not duplicated on the ADRS server. For example, the Ethernet topic not only contains a downloadable text file about Ethernet, but also includes a hyperlink to a WWW site at the University of Texas in Austin. It contains a very extensive collection of materials about Ethernet, including Ethernet packet drivers and manufacturer support information about different Ethernet card suppliers.

Finally (for this installment because we are running out of room), the ADRS Web Server contains a Bulletin and News page. See, Fig. 7 which shows a portion of the current page which has been set up for easy updating. One of the items recently added, for example, by a hyperlink from the bulletin page, is a posting of the detailed rules for the upcoming ANARTS RTTY contest to be held in June, 1995.

Since the ADRS WWW Server was first brought up in February, 1995, and initial testing was completed, it has had many "visitors" from around the world! Other Web Servers around the world now have hyperlinks back to the ADRS WWW Server. So there will be more traffic soon.

Future Installments

In the next installment, we describe further aspects of the ADRS' Internet facilities, what additional features are planned, what is already out there on the Internet, and the implications of all of this to the future of digital mode ham radio operations. In the meanwhile, if you haven't done so already, you should figure out how to visit the ADRS WWW site! If you don't have the equipment or capability yourself to this (yet), find someone who does and go check it out!

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Correction Notice:

Ref: CCW article appearing in May issue

I was delighted to see my article on Coherent CW in the Digital Journal and then startled to find a "typo" which practically wiped out the significance of the "offer" I made near the end.

The code speed should have been 15 (fifteen) words per minute instead of 5 (five). The factor of three will make an enormous difference in the perceived utility of the "optimized" CCW I was proposing. My thanks if you can get a "correction" notice in the June issue!

--Ray Petit W7GHM

(Here's the correction you requested Ray, and our apologies to all for any inconvenience this error may have caused -ed.)

ADRS INTERNET ACCESS

ADRS announces new WWW and FTP Internet sites:

ADRS WWW Site at: http://www.iea.com/~adrs
ADRS FTP Site at: ftp.iea.com/public/adrs

The American Digital Radio Society (ADRS), publisher of the Digital Journal, is pleased to announce its new WWW and anonymous FTP site addresses now available for use by its members and others in the world wide ham radio community. The ADRS WWW and FTP servers are at a commercial site with very high capacity connections to the Internet network so that you should encounter no difficulties or delays in connecting!

The ADRS Web Pages describe and give information about the ADRS, its publications and services, and contain what is now probably one of the most complete set of hyperlinks connections to other amateur radio related WWW sites and related Internet sites worldwide! You are invited to visit the ADRS WWW Pages at: http://www.iea.com/~adrs to learn more about ADRS and as one of the best starting point for exploring amateur radio on the Internet! To use the ADRS WWW site, you need will need an access to the Internet which permits you to use Mosaic, Netscape or a similar Web Browser which provides HTTP (Hyper Text Transfer Protocol) capability. (The new Prodigy Internet WWW Web Browser was tested and performs well.)

The ADRS Anonymous FTP server contains software libraries which mirror much of the software which is available on ADRS' BBS, including the latest versions of special software available only from ADRS. Files on the FTP server are downloadable. You are also invited to visit that site at: ftp.iea.com/public/adrs. An extensive listing of other amateur radio Anonymous FTP sites with hyperlinks to those other FTP sites worldwide is also included on the ADRS WWW Pages at: http://www.iea.com/~adrs. To access the ADRS FTP site, you will need an Internet access over which you can use an FTP client to transfer files using FTP (File Transfer Protocol).

NOW YOU CAN PLACE YOUR ORDER FOR ADRS BOOKS AND SOFTWARE, & RENEW OR BEGIN YOUR MEMBERSHIP, COMPLETE WITH SUBSCRIPTION TO THE DIGITAL JOURNAL USING YOUR CREDIT CARD!

(cont'd from page 24)

you can send your check to the ADRS or me. If you send checks to me, please make the checks payable to me, so I don't have to send them to Florida to be cashed and then returned to me. That will only slow things down..

Next month, as some of you have requested, I'm writing an article about our efforts, to win CQ/DJWW'94 RTTY DX Contest Multi/Multi Category from K1NG's in Rhode Island.

Until next time, 73's de Ron AB5KD

'Remember big antennas high in the sky work better than little one close to the ground..."

Software Notice:

Due to space limitations, the remote control program referred to in the May issue of the Journal (Remote Control Comments by Howard Krawetz, N6HM; pg. 20) will not be published in this issue as originally planned. If you are interested in this program, it is available directly from Howard or may be downloaded from the ADRS BBS. --ed.

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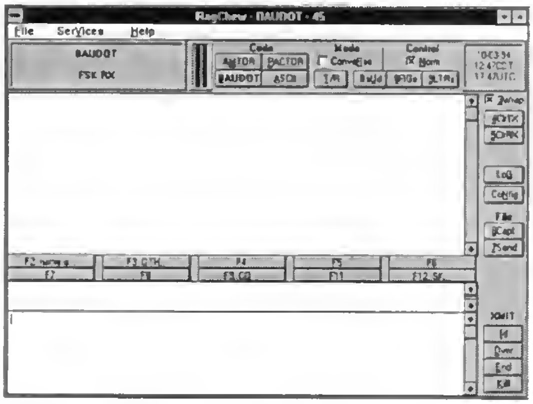

Jim Jennings, KE5HE developed this exciting multi-mode Windows software for your new HAL card. Send RTTY, AMTOR, and PACTOR from the same easy-to-use and friendly interface. Available in station-license form, only from ADRS. $25 for members. $50 for non-members.

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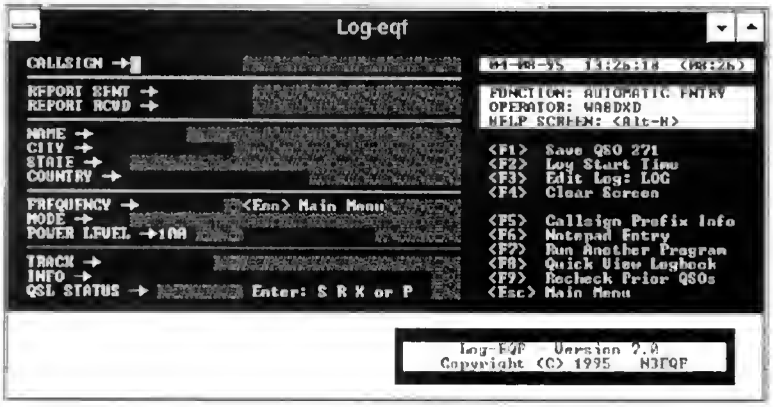

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Log-eqf

CALLSIGN →                          04-AR-95  13:26:18  (AR:26)

REPORT SENT →                       FUNCTION: AUTOMATIC ENTRY
REPORT RCVD →                       OPERATOR: WA8DXD
                                    HELP SCREEN: <Alt-H>
NAME →
CITY →                              <F1>  Save QSO 271
STATE →                             <F2>  Log Start Time
COUNTRY →                           <F3>  Edit Log: LOG
                                    <F4>  Clear Screen
FREQUENCY →        <Esc> Main Menu
MODE →                              <F5>  Callsign Prefix Info
POWER LEVEL →100                    <F6>  Notepad Entry
                                    <F7>  Run Another Program
TRACK →                             <F8>  Quick View Logbook
INFO →                              <F9>  Recheck Prior QSOs
QSL STATUS →       Enter: S R X or P  <Esc> Main Menu

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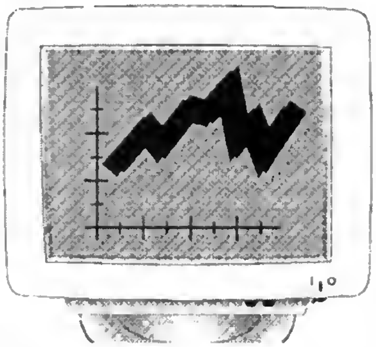

Propagation Prediction? With this new DOS utility it's a "SNAP" Instead of guessing if a radio path is open at a specific time/frequency, just call up SNAP and you'll quickly know where and when to make that QSO. Written by Crawford Mackeand, WA3ZKZ exclusively for ADRS. $15 for members. $30 for non-members.

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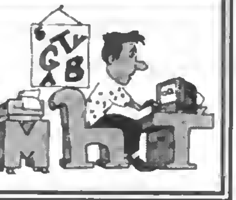

Dave K1ZZ kindly called my attention to an error in the May 1995 article "What Comes Next?" His eagle eye noted my statement that I had neither heard nor read about amateur radio's role in the Kobe earthquake . . . and sent me a copy of the January 24, 1995 ARRL bulletin. Extracts of the report provided by JARL noted that " . . . over 200 amateurs provided communication in the Kobe area, connecting relief centers, exchanged information on road conditions, availability of water and whereabouts of residents. JARL and JAIA (the equipment manufacturers) supplied 200 HT's for 430 and 1260 Mhz as well as three repeater stations. 400 of the 600 relief centers were served."

Thanks Dave. It pleases me to hear that the JA folks involved themselves deeply in the urgent business required by a disaster of the magnitude of the Kobe earthquake. We all need to know more about it and it is hoped that one of the JA's involved will give us a first hand view of the tragedy and amateur radio's role in easing the burden inflicted on the community.

One of the big surprises at Dayton was HAL Communication's new P38! The new product is a perfect fit for those, like me, who use Clover as a QSO mode rather than a high speed traffic forwarding device. The only difference is the elimination of the highest speed options, but the '16P' series is not a requirement for even the highest-tech keyboard interchange. It is truly a "win-win" combination of modes and speed. Coupled with Express and RagChew software (still free with your purchase), this 32 bit card delivers everything you need to be anywhere on the digital bands! Read about it in detail and about other impressions of Dayton appointments and disappointments in the Digest section of the Journal.

However, there is an official bulletin about P38 that any new buyer must read. ADRS will send this information along with all new software orders. But if, for some reason, you purchased a new P38 and received the software without this information (or if you didn't read it!), please take special note. If you are using RagChew with P38, do two things. First, copy P38FSK.S28 and P38.LOD into the RagChew Directory on your hard disk. Then rename the files! Change P38FSK.S28 to PCCFSK.S28 and P38.LOD to PCCFSK.LOD. In Express, create a new directory in your root directory called PCC! Copy P38.S28, P38FSK.S28 and P38.LOD in the PCC directory. Rename those files to PCC.S28, PCCFSK.S28 and PCC.LOD respectively. A word to the wise . . .

In any event, congratulations to Bill Henry and company for a giant step forward into the "low cost" digital future!

FAIRS deserves your support, now! The Foundation for Amateur International Radio Service, LTD is a not-for-profit group deeply involved in major communications development projects (according to the latest newsletter) in Ukraine, Singapore, Haiti, Bangladesh, Poland, Namibia and Zambia, to name only countries mentioned in the headlines. The Ukraine project is perhaps the major one and FAIRS' "Ukranian Digital Amateur Radio Network" undertaking, according to the headline, has just been enhanced by a grant of $25 thousand from the USA's Agency for International Development through the Eurasia Foundation.

This grant covers only the cost of equipment, of course. FAIRS, according to Dave KK4WW who is the executive director, provides the administrative, transportation and installation cost with contributions and the donated time of their members. Given the oft-publicized facts of the Ukraine economy, the project can't be completed without the selfless work of a group such as this. And the scenario repeats itself in not only the countries mentioned in the paragraph above. Your help is needed.

Join now by sending your check for $10 or up to FAIRS, PO Box 341, Floyd, VA 24091.

Winlink 1.2 released. Hans N8PGR works around the clock and recently announced that the new version is available now. "Today's update is all you need to change your current WinLink installation to V1.2. Next week I will also be making a new 'master install' for brand new WinLink installations."

This update and all future copies of WinLink may be downloaded from three areas. The ADRS BBS at 813 922 5904, CompuServe HamNet Forum Library 9, File: UPDATE2.EXE and Internet:stennis.ssc.nasa.gov (IP 148.114.0.217) /pub/winlink.File:UPDATE2.EXE. Log in the internet as 'Anonymous.' Good luck with that Internet address. Hi! Thanks to Hans for a major upgrade to this tried and true software package.

Peter G3IRM enjoyed 'What Comes Next,' but adds, "I will be thinking soon of packing it in as an amateur! It is already getting well away from what we used to know as amateur radio with today's mailboxes and 'alert' systems for rare stations. Before long certificates will have little value compared with the days when we had to (and I still do) look out for rare stations to work." He adds, "So let me concentrate on CCW and the question of operating frequencies. When we over here suggested '20 up' we completely forgot that you have rules regarding where various license class operators can work. So that rules it out. By the same token '26.5 up' also has problems according to W7GB. I don't agree CCW should be in the digital part of the band since CCW is much more a relative of CW than RTTY . . . let's suggest a compromise at '35 up' from the bottom of each band." We are happy to mention this Peter and hope the discussion continues. The interest in CCW spreads every day, at least according to the comments and correspondence, so let's hear from all parties on this suggestion.

Peter goes on to more interesting territory, saying, "I suggest the on-off Baudot system be tried. I have wondered about this for a long time. Why use two frequencies when one will do? The higher speeds used would need a slightly wider bandwidth but nowhere near the 170Hz shifts used today. The DJ7HS program would, I think, be ideal for conversion as it already has provision for four bandwidths between 20 and 200 Hz. Whether DJ7HS would be prepared to re-write the program remains to be seen!"

Our BARTG friends in England utilize GB2ATG for the digital broadcast of bulletins and news seven nights a week. The schedule is all on 80 meters and rotates modes. Monday through Saturday the station is on 3.584 Mark at 20 hours UK local time. Monday and Wednesday is AFSK RTTY, Tuesday Pactor FEC, Thursday is Amtor FEC, Friday RTTY FSK and Saturday, Amtor FSK. Then, to top off the week, Sunday on 3.595 Mark, they broadcast again in RTTY FSK. If you want more details contact Ian at Internet:ibx@cs.nott.ac.uk or Internet:iain@humber.ac.uk.

Ian G4EAN, my faithful correspondent (who prefers the term 'radio' to 'rig' so as not to confuse our ranks with those of the CB crowd), adds his name to those who admire the ADRS Web page on the Internet. In fact there may be some interesting developments in that area. He also reminds us of the frailty of any such network. "Here in the UK, I lost my Internet link to the world when a cable some 80 miles away was severed by a building crew. Imagine what would have

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RS-232C and COM PORT booklet: This is a compilation of all articles published in past issues of the RTTY Journal on these two very important topics. If you are using a computer in conjunction with Ham Radio, you will find this booklet an invaluable tool to have in your shack. The booklet contains information about COM ports 1,2,3 and 4 as well as the RS-232C information. Send $5.00 to the ADRS, PO BOX 2550, Goldenrod, FL 32733 and you will receive a copy of this invaluable booklet by return mail, postage paid.

For Sale - AEA PK-64 with HF modem, Commodore C-64, disk drive, printer, Sanyo monitor, all cables and documentation. Worked DXCC and WAS RTTY with this gear. Sold as a system only $175.00. Dovetron MPC-1000R-II $250.00. Barry Fox, W1HFN, 431 Mulpus Road, Lunenburg, MA 01462 Ph: (Days) 603-889-6600 Ext 320 (leave voice mail if not there); (e-mail) fox@imagitex.com (eves) 508-582-7521.

BACK ISSUES - All Back Issues of the Following: RTTY Digital Journal - ATVQ - A5 SPEC-COM & ATV TODAY. Write for list & prices - SASE - ESF Copy Service, 4011 Clearview Dr., Cedar Falls, IA. 50613 (319) 266-7040

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happened to the UK AX25 network if we depended on Internet link.s to support ham coms. Seems against the spirit of ham radio, somehow. I will also e saying that I only vaguely understand that my Internet link is routed from Nottingham to Manchester in order to get to the world wide link. Contrast this with ham radio where I can easily find the exact route taken by any message coming to me. Gosh, I must seem quite repressive, a bit like the guys who wanted to stay with DSB+carrier when SSB came along in the 50's! I honestly don't like the idea of ham communications depending at all on the non-ham facilities. I thought that a great virtue of ham radio was its total independence from other networks and methods." There you have it in a nutshell. Should we or shouldn't we? Let us hear from you, now.

The FCC finally did it (see box elsewhere)! If you don't quite understand all of the implications of the FCC's order in PR Docket 94-59, just remember this. Fully automatic stations may link with each other ONLY in the new subbands. Those segments are 28.120-28.129, 24.925-24.930, 21.090-21.100, 18.105-18.110, 14095-14.0995 and14.1005-14.112, 10.140-10.150, 7.100-7.105 and 3.620-3.625. THERE ARE NO EXCEPTIONS! If you operate in fully automatic mode, move now, even though the rules do not apply until July 1.

Manually controlled stations may initiate communication with fully automatic stations (or mailboxes) anywhere in the digital spectrum but the exchange may occupy a bandwidth of no more than 500 Hz. THERE ARE NO EXCEPTIONS.

We thank the FCC for their intelligent and responsive reaction to both the ARRL and the ADRS petitions and comments. This fundamental change in frequency utilization will improve the keyboarder's lot in the space below the new subbands, while giving those who are dedicated to high speed traffic exchange a clear shot at fully automated operation.

Now if we could but limit all digital signals to 500 Hz bandwidth we would make real progress in eliminating the HF pollution! Agree?

Welcome Tom N3EQF, the latest contributor to the ADRS Software Store. Tom has turned over the marketing of three sterling products to the Society. They are **Log-EQF, Jr-EQF** and **Rig-EQF**. The 'professional logging' Log-EQF does include everything under the sun including a universal radio interface. The junior version is complete except for the interface and is a real bargain. At this point Tom offers only a Kenwood version of Rig-EQF but it provides complete computer control of your Kenwood rig . . . and it can be used to control up to four radios with fast-switching between ports. This line of products is a fine addition to the ADRS line of software products. I hear from Al W2TKU that there are more coming soon.

We thank Bob WA6WGL for his excellent work in this month's Digital Journal. Wonderful reading for sure. Bob has often reminded us of the good old days by extracting items from ancient copies of the Journal for his "Looking Back" noes. But this time it is a much more personal look back and his role in it. We appreciate looking backward as well as forward, but I do have a bone to pick with him. For example, he refers to himself as a dinosaur and leaves the impression throughout that he must be at least 105 years of age. The feeling was so strong that I finally fired up SAM. Guess what! He was born the same year I was . . . must have been a vintage year. Hi! In any event, nice work, Bob and please bring us some more reminders of other early contests and other interesting events. *(Note: Due to space limitations, WA6WGL's article did not make it into this issue but will appear in the July DJ --ed.)*

Thanks also to Glenn W6OTC for the look at Visalia. It sounds as though there is no shortage of controversy in the DX world, as in most others. His suggestion that contest procedures be adopted by the Dxpeditions makes sense, at least on the surface. However, my observations suggest that contest pile-ups are somewhat less chaotic than the typical DX version of the same phenomenon. Perhaps the difference traces to the state-of-mind of the participant. The DX-er often maintains a now-or-never mentality, a feeling that says "If I don't do it now I will never have another chance to get that one." At least in some cases, that is literally true. This attitude contributes very little to orderly behavior on the bands, to say the least. We simply crank up the power and blast away, hoping that somehow, sometime, we can see a small fraction of our callsign print on the screen.

The contester, on the other hand, is looking at the rare DX station as simply another multiplier, and there are normally dozens of other multipliers calling CQ elsewhere on the bands. And in all probability, the multiplier is of more importance than the new country. This may explain why there is a willingness to look for the station later, or on another band, a sense of patience not visible among the DX-ers. They aren't a better behaved bunch they simply have a different axe to grind. Such an attitude probably explains why most exchanges in the contest arena are made with the briefest of messages and most often without repeats, allowing for a very high QSO rate. Will it work in the DX arena? What do you think?

To Jay and Ron . . . congratulations! Of course they designed a great contest. Of course they won it. But I congratulate them for a truly spectacular follow-through. Here it is only mid-May and the plaques and certificates are in the mail. I think that is outstanding performance. Nobody, anywhere can claim they have forgotten all about this contest before they got their wallpaper! Keep it up guys, but be ready for twice as many logs in '96!

It's that time again. As this issue goes to the printer, Gen and I board a Delta jet for the nonstop flight to LGA, then the two hour ride to Somers, NY. Then comes the reorientation, the getting used to everything after being absent for seven long months. I know everything is in good order for I stopped by the new house in April and discovered that the only thing wrong was my memory. The burglar alarm code and I were on separate wavelengths and the ensuing chaos disrupted what I had hoped to be a restful evening! The number is now etched in my left brain (or is it the right?).

Speaking of numbers, we remain despite the move, easy to reach. CompuServe is the surest for I check several times each day wherever I am. The number is 71573,1077. Voice becomes 914 276 1058 and Fax 914 276 1059 until mid-October. Or watch on 20 meters for a weak Clover or Pactor signal. I will be experimenting with various attic antenna solutions, most of which will produce something less than a pile-up breaking signal on your S-meter. No doubt I will find the perfect solution the day we are to return to Florida! Until that day I will miss the 50 foot tower and the KT334A! Enjoy the summer.

Last minute news! One day before press time, a package arrived from G3IRM. Peter sent the CCW software by DJ7HS to us. It, along with commentary is available in a file called CCW.ZIP from either the ADRS BBS or Web Page on the Internet. The zip file is a small one, so download it and have some fun. More in the July issue's CCW column.

73 de Jim N2HOS SK

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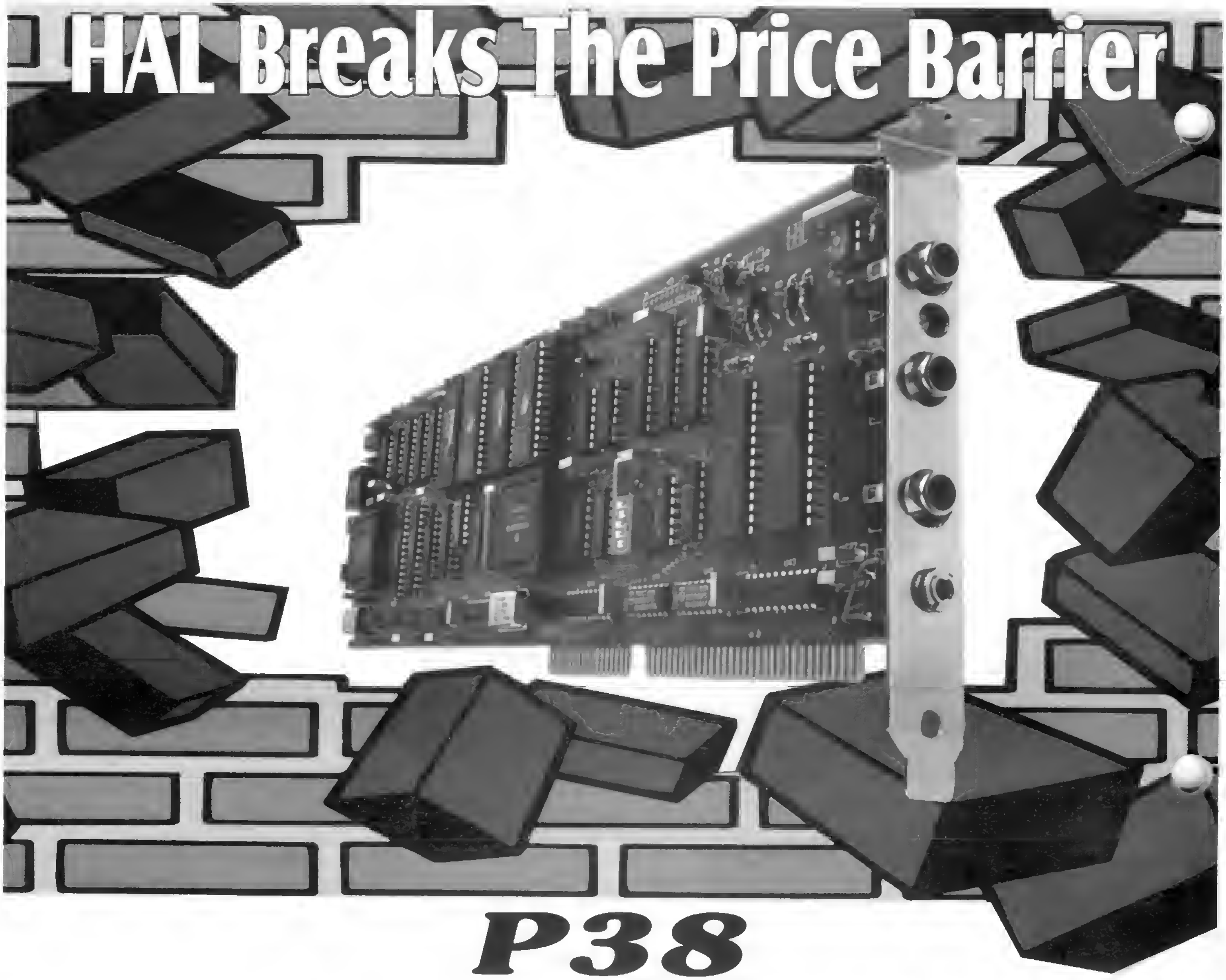
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